



European Monitoring Centre  
for Drugs and Drug Addiction

## **EMCDDA trend report for the evaluation of the 2005–12**

### **EU drugs strategy**

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## EMCDDA Trend report: executive summary

This report has been compiled by the EMCDDA in the first half of 2011 as a supporting document for the external evaluation of the 2005–12 EU drugs strategy and its two 2005–08 and 2009–12 action plans. It reviews the main trends and changes in the European drug situation and in the responses developed by the EU Member States. Four main areas are covered by the report: drug use and drug-related problems; drug supply; drug policies; and demand reduction interventions.

In this summary, at the beginning of each of these sections, the reader is reminded of the relevant priorities and objectives set out in the EU drugs strategy, in order to facilitate analysis and assessment of progress and achievements. The timeframe for analysis is from 2004 (the year before the strategy) until the most recent data available, usually 2009 or 2010. Most of the data have been collected through the EMCDDA's network of Reitox national focal points but additional data sources have been used in some areas.

### Drug use and drug-related problems

In the field of demand reduction the EU Drugs Strategy 2005-2012 aims for: *A measurable reduction of the use of drugs, of dependence and of drug-related health and social risks.* The following section summarises the available data over the period with regard to European trends in drug consumption levels and drug-related harms. A more in-depth analysis can be found in the relevant sections in the main body of this report.

- **Heroin is still Europe's biggest problem drug**

Heroin use continues to account for the largest share of drug-related diseases and deaths in the EU. There is an estimated 1.3 million regular opioid users in the EU, and the period covered by the EU drugs strategy has seen little change in this overall European estimation. The number of new heroin users entering treatment remained also stable between 2004 and 2009, and is relatively low in most countries. The characteristics of Europe's opioid problem are however changing. Treatment data indicate that opioid users have become older, and that proportion of injectors decreased. A five-year analysis of trends in heroin users entering treatment shows that the proportion of those reporting injecting is declining in most European countries. In the most recent data, under half (40 %) of those entering treatment for opioid problems have reported to be regular injectors. There are however important country variations (from under 10 % in the Netherlands to over 90 % in Latvia and Lithuania). In a number of mostly north European countries the use of opioids, other than heroin, is increasingly reported by drug treatment clients.

- **HIV rates low, but ongoing risk of outbreaks among drug injectors**

Over the last decade, gains have been made within the EU in addressing HIV infection among injecting drug users — these include a greater availability of prevention, treatment and harm-reduction measures. Latest European data show that the average rate of newly reported HIV cases continues to fall in Europe, reaching a new low of 2.85 new cases per million population (in total around 1 300 cases). However, there are indications of continued potential for HIV outbreaks among injecting drug users in some countries, with some recent worrying new developments. In July 2011, Greece reported a large outbreak in new HIV infections among drug injectors, while in October 2011, a notable increase in new HIV infections was identified among drug users in Romania.

- **HCV levels high but modest declines in new cases**

Contrary to HIV, HCV infection is highly prevalent among injecting drug users in most EU Member States. High prevalence is also found in young and new injecting drug users, suggesting transmission often occurs early in an individual's injecting career. Notification data suggest that a considerable part of all HCV cases in Europe is attributable to injecting drug use. In the period 2004–09/10 in the EU countries where it was possible to establish trends, some modest decline in HCV incidence is reported.

- **High and stable numbers of drug-induced deaths**

Drug-induced or overdose deaths increased markedly during the 1980s and early 1990s, paralleling the increase in heroin use and drug injection, and have thereafter remained at historically high levels. Between 2000 and 2003, most EU countries reported decreases, followed by subsequent increases from 2003 until 2008. Preliminary and provisional data suggest a stable situation in 2009 with around 7 000 drug-induced deaths reported for the EU as a whole. The age of opioid overdose victims has increased during this period, with the proportion that is over 40 years at time of death increasing. An estimated 10 000 to 20 000 problem opioid users could be dying each year in Europe, with overdose deaths representing only around half of the estimated mortality found among problem drug users who are also at a higher risk of death caused by disease, suicide, trauma and violence.

- **Cocaine levels steady or decreasing in high prevalence countries and remain low elsewhere**

Cocaine has become the second most commonly used illicit drug in Europe, although prevalence levels and trends differ considerably between countries. High levels of cocaine use are observed only in a restricted number of mostly west European countries. A number of EU Member States have seen significant increases in cocaine use over the last 10–15 years, particularly Spain and the United Kingdom, however the most recent population surveys (2008–10) and targeted studies in recreational settings, suggest a stabilisation or even slight decrease in levels of use. Most central and east European countries continue to report low levels of cocaine use. In 2004, crack cocaine use was highlighted as a cause for concern; however the situation has remained relatively stable with the problem largely restricted to a limited number of European cities.

- **Methamphetamine partially replaces amphetamine in some northern European countries**

In a few European countries, the use of amphetamine or methamphetamine, often by injection, is accounting for many years for a substantial proportion of the overall number of problem drug users and those seeking help for drug use. Overall, only a small proportion of those entering treatment in Europe report stimulants other than cocaine as their primary drug: around 5 % of all drug clients in 2009 entered treatment for stimulants other than cocaine, primarily amphetamines. Countries with the highest proportion of amphetamine clients are Poland, Sweden and Finland. Until recently, the supply and use of methamphetamine in Europe was thought to be restricted to the Czech Republic, and to a lesser extent Slovakia. However, in recent years methamphetamine has also appeared on the drug market in other countries, particularly in the north of Europe (Latvia, Sweden and, to a lesser extent, Finland), where it appears to have partially replaced amphetamine. Much of this methamphetamine is reported to be manufactured in countries such as Estonia and Lithuania, whose location on the southern shores of the Baltic Sea may facilitate both production and trade.

- **Cannabis use stable or reducing but continues to be Europe's most popular drug**

Cannabis remains the most popular illicit drug in Europe. Around 78 million Europeans — one in five adults aged 15–64 years — have tried cannabis in their lifetime, around 22.5 million of them having used it in the last year. Following increases in cannabis use in the EU during the 1990s and early 2000s, many countries, in particular some of those with higher prevalence, have reported stabilisation or downward trends in cannabis use among young adults. Surveys of schoolchildren (15–16 years) mirror this decline. Decreases in tobacco smoking may be exerting some influence on cannabis trends in Europe, where the two substances are commonly used together.

- **Gradual increase in numbers of cannabis and cocaine users entering treatment**

Cannabis has continued to be the second most frequent reason for entering specialised drug treatment in the European Union, and trends for treatment demand during the 2004–09 period show an increase (41 %) in the numbers of new clients entering treatment for primary cannabis use. This increase reflects not only increasing needs but also changes in referral practices, and the expansion in service provision in some Member States. There is growing interest in Internet-based treatment for problem cannabis users and an expansion of this

modality across the EU is expected. During the period 2004–09, the number of clients entering treatment for their cocaine use has increased in Europe, by almost a third between 2004 and 2009, but again with the bulk of treatment demands reported by a relatively small group of countries in parts of western Europe.

- **GHB, ketamine generally low prevalence, higher in certain sub-groups**

Estimates of the prevalence of hallucinogenic drugs, GHB and ketamine use have remained generally low, although in specific groups and settings, prevalence can be comparatively high. Some concern has been noted recently about the health problems that may arise from the chronic use of ketamine, although such consumption patterns appear rare. In the period up until 2004, there was concern in some European countries about an upsurge in availability and use of hallucinogenic mushrooms, however this trend appears to have been curtailed by control measures placed on sales, with low and largely stable prevalence levels reported in recent surveys.

## Drug supply and new drugs

In the field of supply reduction, the EU Drugs Strategy 2005-2012 aims for: *A measurable improvement in the effectiveness, efficiency and knowledge base of law enforcement interventions and actions by the EU and its Member States targeting production, trafficking of drugs, the diversion of precursors, including the diversion of synthetic drug precursors imported into the EU, drug trafficking and the financing of terrorism, money laundering in relation to drug crime.* The Strategy does not include specific objectives on new psychoactive substances or so-called 'legal highs', although this has been an area which can be categorised by rather dramatic developments during the period.

- **The heroin market, evidence of both stability and drought**

The supply of heroin to European markets appears to have been relatively stable during the 2004–09 period, however the retail price of brown heroin decreased in half of the 14 EU Member States reporting time trends. There have been more recent developments in the opium and heroin markets which may impact on future trends. Firstly, a significant fall in opium production in Afghanistan was reported in 2010. In a second significant development, the availability of heroin is reported to have dropped sharply in a number of countries at the end of 2010 and early 2011, with the 'drought' being particularly evident in Ireland and the UK. Elsewhere — Italy, Slovenia, Russia and Switzerland — shortages may also have been felt, although the extent is less clear. Heroin supply in other countries remains unaffected.

- **Diversification in cocaine trafficking routes and methods**

The criminal networks that supply cocaine to Europe appear quick to adapt to interdiction efforts. That is reflected in a diversification in both trafficking routes and methods. Trafficking routes that were viewed as secondary or emergent in 2004 could now play a more important role, while traffickers have increasingly used sophisticated methods of concealment, such as incorporation of cocaine in so-called 'carrier' materials (e.g. beeswax, plastic, clothing, fertiliser, etc.) before export, then extracting it in clandestine laboratories inside the EU borders. Some 30 of these 'secondary extraction' laboratories were uncovered in the EU in 2008.

- **Increasing domestic production of cannabis**

It is difficult to draw simple conclusions on trends on the supply of cannabis in Europe given the size and complexity of the market. The data available does not suggest that there has been any decrease in the availability of this drug in recent years and market diversification means it is likely that the choice of cannabis products available to many consumers has probably increased. Overall, the number of seizures and the quantities of cannabis herb, cannabis resin and cannabis plants seized, increased during the 2004–09 period. While cannabis resin continued to be the most seized product in Europe, the strongest increases were recorded for cannabis herb and cannabis plants. This may reflect increases in the production of cannabis herb within Europe and in neighbouring countries, some of which is

intensively farmed. Domestically produced cannabis may also be less likely to be seized as it does not need to be transported across external borders.

- **Scarcity and possible bounce back for MDMA**

Since 2004, there has been a change in the content of ecstasy tablets in Europe, from a situation where most tablets analysed contained MDMA or another ecstasy-like substance (MDEA, MDA) as the only psychoactive substance, to one where the contents are more diverse, and MDMA-like substances less commonly present. There is evidence that production difficulties have led manufacturers to replace MDMA in tablets sold as ecstasy with other substances, such as amphetamines and now commonly piperazines such as *mCPP*. The most likely explanation for the decline in the availability of MDMA is a shortage of PMK, traditionally one of the main precursor chemicals used to manufacture ecstasy in Europe. Since early 2010, there are indications that the availability of MDMA in tablets sold as ecstasy may be increasing again suggesting the ability of supply networks to respond innovatively to challenges.

- **Increasing sophistication in techniques to bypass precursor rules**

Synthetic drugs, including ecstasy and amphetamine are manufactured illegally in Europe from imported precursor chemicals. Recent reports suggest producers are using sophisticated techniques to bypass regulations intended to prevent the diversion of these precursors. These include: synthesising precursors from 'pre-precursors' or masking them as non-controlled chemicals to be reconverted after importation. Recent fluctuations in the ecstasy market illustrate this phenomenon. Following successful measures to limit the diversion of its precursor PMK, mentioned above, it now appears that manufacturers are using a range of pre-precursors, including safrole, as their starting material for MDMA.

- **Record numbers of new psychoactive substances notified**

Record numbers of substances are reported each year to the European Early-warning system (EWS). Between 2005 and 2010, more than 100 new psychoactive substances were notified <sup>(1)</sup> for the first time through the EWS, with a record number of new substances (41) reported in 2010. The appearance of synthetic cannabinoids and cathinones, as well as derivatives of synthetic cocaine, ketamine and phencyclidine, has marked the latest stage in this development.

- **Increase in the number of 'legal highs' available Europe**

In recent years, there has been a relatively dramatic increase in the appearance of a large number of new unregulated synthetic compounds marketed on the Internet and in specialised shops as 'legal highs'. These are specifically designed to circumvent drug controls and present a growing challenge to current approaches to monitoring, responding to and controlling the use of new psychoactive substances. The most recent EMCDDA snapshot of online retailers of 'legal highs' (July 2011) identified a record 600 online shops purportedly selling psychoactive products, and revealed a wide variety of new products on offer. Compared with earlier snapshots, retail sites appeared to exercise increasing caution by placing restrictions on deliveries and giving disclaimers and warnings.

## Drug policies

The EU Drug Strategy has no main priorities specifically focusing on national strategies, laws and public expenditure, however, the cross-cutting theme of coordination does include an objective to: *'Ensure that a balanced and integrated approach is reflected in national policies and in the EU approach towards third countries and in international fora'*. In addition, included under the Strategy's cross-cutting theme of evaluation, an expected result is: *'To give clear*

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<sup>(1)</sup> Under the terms of Council Decision 2005/387/JHA.

*indications about the merits and shortcoming of current actions and activities on EU level, evaluation should continue to be an integral part of an EU approach to drugs policy’.*

- **National drug strategies In place**

Over the 2005-2012 period, EU Member States have continued to develop detailed strategies and action plans in the drugs field. As of mid 2011, two more countries have national drug policy documents than was the case in 2005, and it is reasonable to predict that more than 50 separate drug strategies and action plans will have come into force over the eight-year period of the strategy — an average of almost two per country. In terms of content, changes are difficult to assess and might have been relatively limited as the documents are still comprehensive and cover all or most areas of drug policy. On the whole, countries have not extended drug policies into the broader field of addictions, and/or towards the inclusion of licit drugs such as alcohol.

- **Increasing evaluation of drug policies**

The increased use of policy evaluation has been a major area of development, and most European countries have evaluated their drug policy document during the period. The quality of the evaluations vary, and some of the approaches utilised remain below the desired or generally accepted, scientific standard. There is, however, increasing evidence across Europe as a whole of considerable drug policy planning supported by regular reviews.

- **Trend towards lower penalties for possession**

An analysis of trends in national drug legislation shows that national penalties for personal possession offences have changed over the period of the EU Strategy, both increasing and decreasing, but with a general move towards low or no prison penalties, while penalties for supply offences have increased. In general, these changes are in line with the converging European position that views the drug user as in need of help and the supplier as deserving punishment. There has been continual debate about the value of, and changes to, quantity thresholds and their use as a tool to clarify this distinction between users and suppliers. However, at EU level no consensus has been found on this issue.

- **Innovation in policy responses to ‘legal highs’**

Also in the area of drug laws, there have been considerable changes in speed and scope of drug controls used across Europe since 2005. Some of these have been driven by the ‘legal highs’ phenomenon, including the use of medicines laws, consumer protection laws and innovative ‘catch-all’ legislation.

- **Impact of recession on Europe’s drug responses**

The recent economic downturn is likely to affect national governments’ drug-related expenditure but is not yet possible to assess what the exact impact of this will be. A first informal data collection with the national focal points has shown that drug-related budgetary cuts are already being applied in many EU Member States and the areas of general coordination, research and prevention are most frequently mentioned, but a future impact on frontline services, such as treatment also appears likely.

## **Drug demand reduction**

In the area of demand reduction the EU Drugs Strategy 2005-2012 supports: *the development and improvement of an effective and integrated comprehensive knowledge-based demand reduction system including prevention, early intervention, treatment, harm reduction, rehabilitation and social reintegration measures within the EU Member States.* Priorities include: improving access to and effectiveness of prevention programmes, early intervention programmes, targeted and diversified treatment programmes, and services for the prevention and treatment of infectious diseases.



- **Slow take up of evidence-based prevention approaches**

Prevention continues to be a key element within responses to drug use and drug-related problems in Europe, however universal prevention approaches still tend to be characterised by interventions which may stimulate public attention and influence debates, but that are not grounded in scientific evidence that they can prevent drug use. In spite of an increased interest in selective prevention approaches by Member States this does not yet appear to have been translated into a significant increase in investment in interventions targeting the most vulnerable groups. Indicated prevention interventions are beginning to gain ground in a few European countries, although the potential for this kind of approach to reduce the impact of neuro-behavioural factors relevant to drug taking behaviours is still largely unexplored. Despite some positive examples of innovative programmes, the data available suggest that the objective of encouraging a greater uptake of prevention approaches with a stronger evidence base for effectiveness does not appear to have been significantly achieved.

- **Opioid substitution treatment (OST) provision in all MS**

Availability and access to drug treatment has generally increased in recent years. In 2009 at least one million drug treatments are estimated to have been delivered in the EU, about two thirds of these being related to opioid users in substitution treatment. All EU Member States now provide this type of treatment and the range of medications has expanded. In particular, the use of buprenorphine-based medications appears to be increasingly popular and some countries have been evaluating supervised heroin assisted treatment as a response to those clients that are regarded as hard to treat with other approaches. Methadone remains, however, the most frequently prescribed drug, but its share of the overall substitution market has declined from about 80 % to 75 % in recent years.

- **OST coverage varies widely, with levels still low in many new MS**

Overall, the coverage of opioid substitution treatment is estimated to have increased from about 40 % of the number of opioid users in Europe in 2004 to around 50 % in 2009. This being said, the difficulties in calculating the number of problem drug users combined with the fact that estimates are sometimes based on treatment data sources, mean that such calculations should be interpreted with some caution. While levels of treatment provision for opioid users are impressive in some countries, coverage still varies greatly and is very low in others. Around 95 % of these treatments are provided in the 15 pre-2004 EU Member States.

- **Core harm reduction interventions in all countries**

In the past two decades, Europe has seen the growth and strengthening of harm reduction, and its integration within a range of other healthcare and social services. Core harm reduction approaches, such as substitution treatment, or the provision of sterile injecting equipment are no longer regarded as controversial and programmes now exist in all EU countries in these areas, even if levels of implementation and coverage still vary greatly. However, clear differences still exist between countries in the choice of what might be regarded as second line and highly targeted interventions (e.g. heroin-assisted treatment, drug consumption rooms, prison needle exchange) and no overall consensus currently exists between all Member States on either the appropriateness of these kinds of approach or what part they should play, if any, within a national demand reduction strategy.

- **Drug-related problems in prison increasingly targeted**

Services are increasingly targeting drug-related problems in prison, and there has been a growing interest in implementing the principle of service equivalence in all areas of healthcare between prisons and community settings. The number of countries where opioid substitution treatment can be continued after imprisonment or even started whilst incarcerated has considerably increased over the evaluation period. Similarly, regular screening for infections is increasingly developed in prison settings. Despite this, coverage and access inside prisons has not yet reached the conditions that can be generally found in the community in many countries. The distribution of sterile syringes is an accepted measure to reduce drug-related infectious diseases in community settings, but this approach has not been introduced widely in prison settings and currently only implemented in a relatively small number of countries.

- **Increasing use of guidelines and standards in Europe**

Over the period under evaluation, the development of drug-related guidelines and standards has increased in Europe. At least 135 guidelines on treatment have now been developed in 24 EU Member States, many of them implemented in recent years. Current EU work pursuing the objective to collect standards of interventions and to find an agreement on minimum quality standards, underlines the international character of this development. Specific programmes for implementation of guidelines have been reported in 19 Member States.

## Introduction

This report has been compiled by the EMCDDA as a support document for the external evaluation of the 2005–12 EU drugs strategy and its two 2005–08 and 2009–12 action plans. It reviews the main trends and changes in the European drug situation and in the responses developed by the EU Member States. Four main areas are covered by the report: drug use and drug-related problems; drug supply; drug policies; and demand reduction interventions. The timeframe for analysis is from 2004 (the year before the strategy) until the most recent data available, usually 2009 or 2010. Most of the data have been collected through the EMCDDA's network of Reitox national focal points but additional data sources have been used in some areas.

The reader should note that for some indicators data is not collected annually and, therefore, data used for trends reporting will be the most recent information available. In some cases, missing data points may be interpolated based on commonly accepted statistical procedures. The data used for this report, as well as details on statistical procedures, and supporting methodological notes and caveats, can be found in the EMCDDA statistical bulletin ([www.emcdda.europa.eu/stats11](http://www.emcdda.europa.eu/stats11)).

The European monitoring system has remained generally stable since 2004 and the trend analysis presented in this report is mostly based on identical reporting tools and practices. There are however some changes that need to be taken into account when reading this document. Two additional countries (Bulgaria and Romania) joined the EU in 2007. While these two countries were already providing data in the preceding years, reporting levels may have increased or improved since 2004. Improved coverage for some indicators, both regarding the drug situation and the EU Member States' responses, is also a long term characteristic of the European data collection, as every year experts try to improve collectively the monitoring system. The EMCDDA's scientific analysts have taken these changes into account when presenting and interpreting trends in Europe. It is however difficult to consider all possible changes in all reporting countries on all indicators and it cannot be ruled out that some reported changes are also linked to better reporting practices.

In 2006, the EMCDDA developed, with its network of national focal points, a data collection timetable with the aim to provide timely and relevant data for the evaluation of the EU drugs strategy in 2012. The decision by the European Commission to undertake the evaluation one year earlier than planned has resulted in a lack of recent data in certain areas (treatment, strategies).

### A view of the European drug use situation from a 2004 perspective

While the main focus of this report is on the trends and changes in drug use and responses in Europe during the period of the EU drugs strategy, it can be useful to take a step back and consider the drug situation in Europe in 2004 that the strategy aimed to address it. This section draws on EMCDDA Annual reports from the years 2004 to 2006 and aims to provide both a starting point for the remainder of the chapters which have a more recent focus, as well as serving as a reminder that many of the problems and solutions seen as pertinent in 2011 have their roots in 2004 or earlier.

During the 1990s, almost all European countries witnessed a marked increase in cannabis use. In 2004, this upward trend was continuing in most countries although signs of stabilisation and decrease were identified in two countries with relatively high prevalence (Ireland and the UK).

In 2004, surveys indicated that amphetamine and ecstasy consumption, which had shown an increasing trend in previous years, might be stabilising or even decreasing. There were also reports from a small number of Member States of an increase in use of methamphetamine, mainly among frequent attendees at clubs and parties. The period up until 2004 also saw an

upsurge in reported use of hallucinogenic mushrooms whose availability had increased since they began to be marketed alongside other 'natural' products in 'smart shops' and on market stalls, particularly in the Netherlands and the UK.

The late 1990s and early 2000s saw a considerable increase in the number of users of cocaine and by 2004, estimates now placed the drug slightly ahead of amphetamine and ecstasy as Europe's second most used illicit drug. However there were signs that consumption levels were beginning to stabilise and evidence that significant cocaine use was restricted to a few, mainly southern and western European countries. The use of crack cocaine continued to cause concern, and whilst use remained very limited in Europe, reports of problems from some cities suggested that the situation might be deteriorating.

In 2004, opioids (largely heroin) continued to be the principal drugs for which clients entered treatment in Europe, accounting for just over half of all reported treatment entries; among opioid users entering treatment, around six in ten were injecting the drug. In terms of trends, evidence from people entering treatment for the first time suggested a decline in the incidence of problem opioid use, and a general decrease in drug injection, in particular in a number of the countries that were already members of the EU before 2004. An ageing population of people with heroin problems was identified — a group considered to be likely to require care and remain major consumers of resources for many years to come. Cannabis was the primary reason for referral to treatment in about a fifth of all reported treatment entries in 2004, making it the next most commonly reported drug after heroin.

In 2004, most countries reported low rates of newly diagnosed HIV infection attributable to drug injecting, with rates of HIV amongst injectors estimated to be below 5 %. However, rates of infection with the hepatitis C virus (HCV) among drug injectors in Europe were reported to be universally high, with increased incidence observed in some groups, and a large high-risk group of injectors in some of the new Member States. There were also indications that the overall number of drug-induced deaths, which had generally been on the decline since 2000, was increasing in a majority of European countries. In 2004, over 400 deaths were identified as being causally related to cocaine use, and cocaine-related deaths appeared to be increasing in all high-prevalence countries.

As of 2004/05, over 30 'new synthetic drugs' had been reported through the European Early-warning system. The use of most of these substances was not widespread and most had a limited life on the illicit drugs market. The majority of drugs identified between 1997 and 2004 were phenethylamines, tryptamines and, less commonly, substituted cathinones and piperazines. By 2004, risk assessments had been carried out on nine substances, including ketamine and GHB.

## Chapter 1. Drug use and drug-related problems

This chapter reviews the major trends and changes that have taken place since 2004 in the field of drug use and drug-related problems in Europe.

### Drug use among the general population

Most EU countries now conduct population surveys and 15 have sufficient data to establish trends in the last 10–15 years. Trends are based on last year prevalence among young adults (15–34), as drug use is concentrated among this group. Trends among school students (aged 15–16 years) are analysed using lifetime prevalence, as initiation to drug use prior to this age is uncommon.

#### Cannabis

Cannabis is the illicit drug most widely used in Europe and 2009 estimates suggest that it has been used at least once (lifetime prevalence) by over 77 million Europeans, and by about 22 million people in the last year, although with considerable country differences.

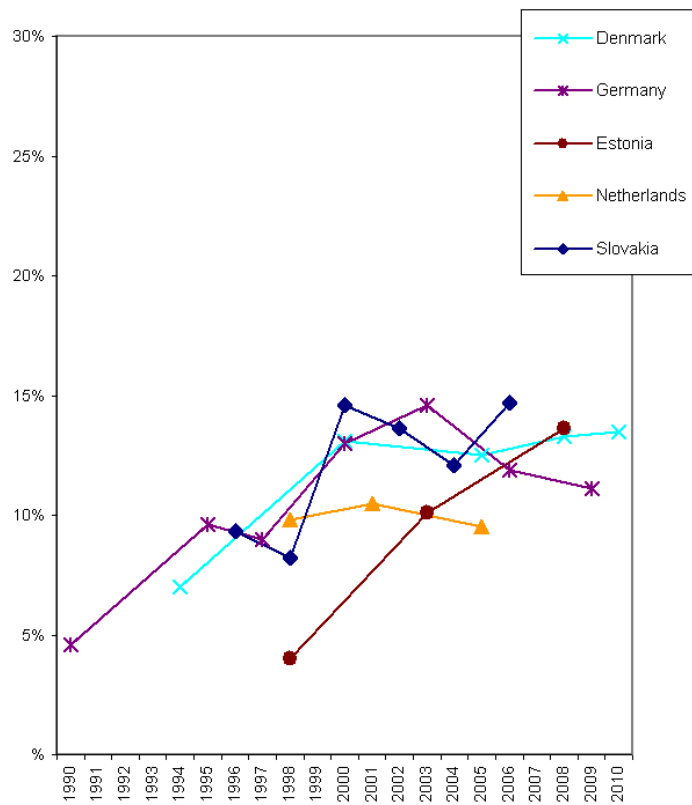
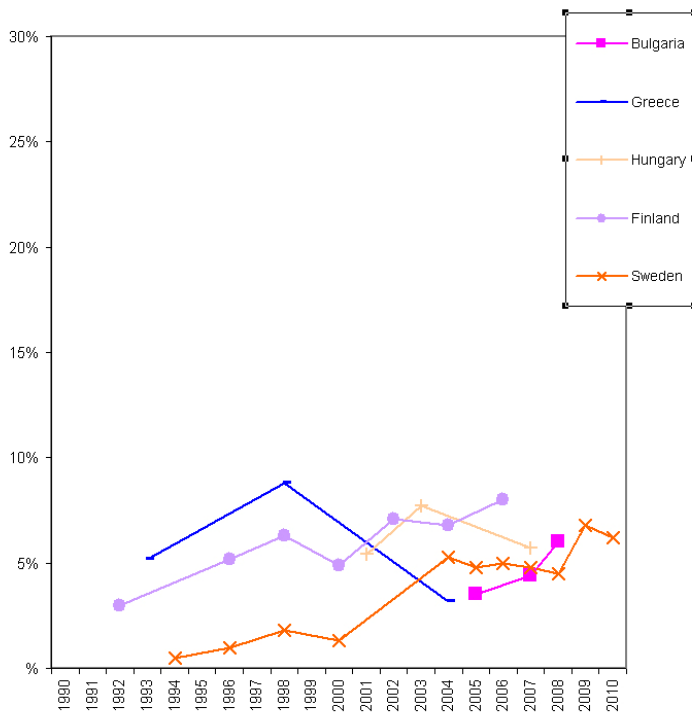
There were notable increases in cannabis use in many countries from the mid 1990s until the first years of 2000. However, in more recent years (2004–09/10) the European picture has become more complex. During this period, many countries have reported that cannabis use is stabilising or even decreasing, although a small number of countries may be witnessing an increase.

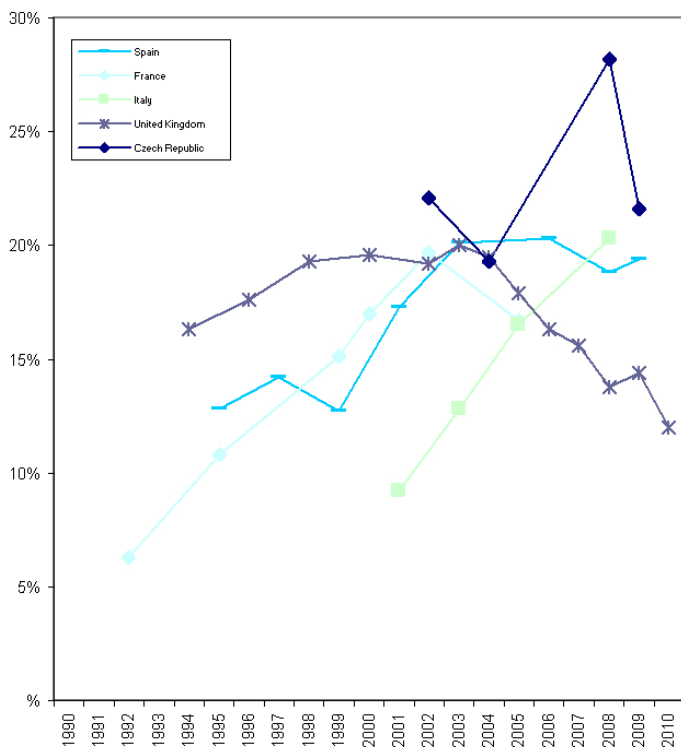
Trends in 15 countries can be grouped according to prevalence levels (Figure 1). Among the five countries with highest prevalence in the past decade, the United Kingdom and, to a lesser extent, France have reported decreases in last year prevalence of cannabis use in their most recent surveys and Spain has reported a relatively stable situation since 2003. Italy and the Czech Republic have both reported increases followed by decreases in this period. Differences in survey methodology and response rates, however, do not yet allow confirmation of the most recent trends in these two countries. It is also worth noting the particular case of the United Kingdom, where in 2010, last year prevalence of cannabis use fell below the EU average for the first time since European monitoring began.

Another group of five countries (Denmark, Germany, Estonia, the Netherlands, Slovakia), located in different parts of Europe, report last year prevalence of cannabis use that did not exceed 15 % in their latest survey. All of the countries in this group, except the Netherlands, reported notable increases of use in the 1990s and early 2000s and with the exception of Estonia, this group of countries have reported stable trends in the period 2004–09/10. A final group of five countries (Bulgaria, Greece, Hungary, Finland, Sweden), located mainly in north and southeast Europe, have always reported levels of last year prevalence of cannabis use not exceeding 10 % among 15- to 34-year-olds. The recorded stabilisation or decrease in cannabis use refers to last year use, which includes mainly recreational patterns of use. However, it remains unclear as to whether intensive (daily use) and long-term use have also stabilised.

Similar patterns to those described for young adults, mainly stable or decreasing trends in cannabis use, are found across Europe in the time trends in cannabis use among school students surveyed by ESPAD between 1995 and 2007.

Figure 1: Trends in last year prevalence of cannabis use among young adults (aged 15 to 34), countries with three surveys or more and grouped according to highest prevalence level reached (below 10 %, 10–15 %, above 15 %)



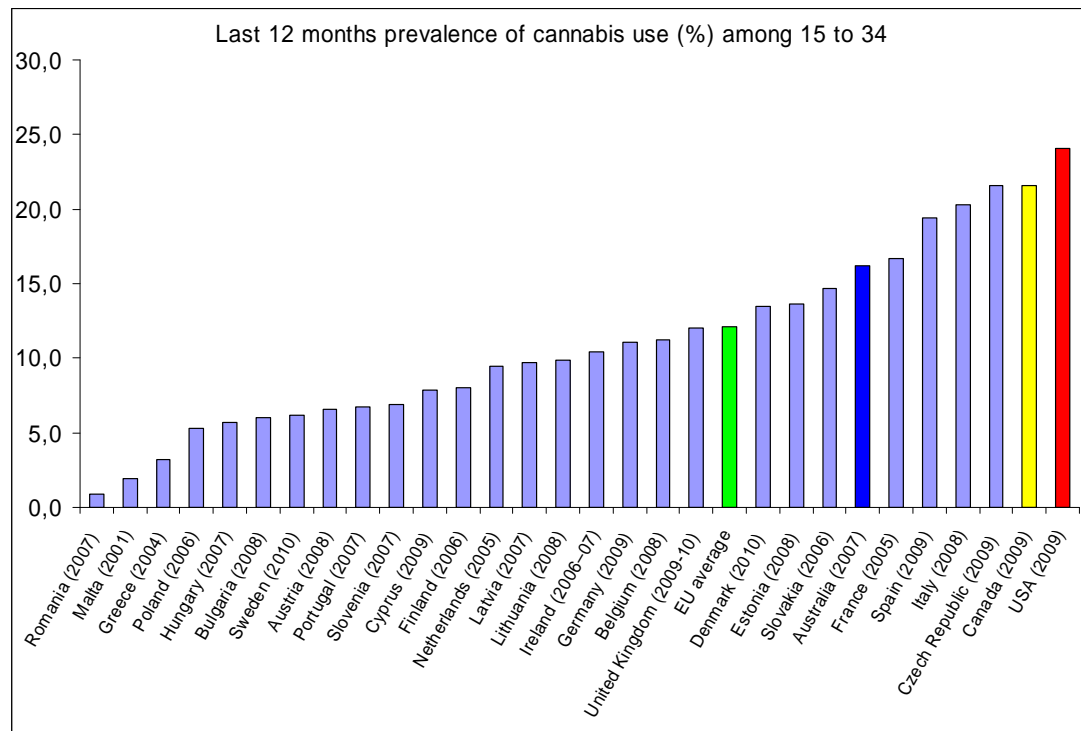


NB: See Figure [GPS-4](#) in the 2011 statistical bulletin for further information.  
 Source: Reitox national reports (2010), taken from population surveys, reports or scientific articles.

Trend data from school surveys in the United States and Australia also indicate a decreasing trend in cannabis use in the years up to 2009. However, the most recent US school survey, carried out in 2010, indicates a possible resurgence in cannabis use with school students reporting increased last year cannabis use and lower levels of disapproval of the drug.

Cannabis use among young adults in Australia, Canada and the United States is above the European average but some countries in the European Union report levels that are already above or close to them (Figure 2).

Figure 2: Last year prevalence of cannabis use among young adults (aged 15 to 34) in EU Member States, Australia, Canada and the United States



NB: Data are from the last survey available for each country. The European average prevalence rate was calculated as the average of the national prevalence rates weighted by national population of 15- to 34-year-olds (2007, taken from Eurostat). US and Australian data have been recalculated from original survey results to the age bands 16–34 and 14–39 years, respectively. Data for Australia refer to 2007, data for Canada and the USA to 2009. See Figure GPS-20 in the 2011 statistical bulletin for further information.

Sources: Reitox national focal points, AIHW (2008), CADUMS (2010), SAMHSA (2009a).

### Amphetamine and ecstasy

2009 prevalence estimates suggest that about 12.5 million Europeans have tried amphetamines and about 11 million Europeans have tried ecstasy, with a weighted European average of 3.8 % (range 0.0–11.7 %) for amphetamine and 3.2 % for ecstasy (range 0.3–8.3 %). It should be noted that stimulant use is usually much higher than national averages in recreational settings (music, dance, night clubs).

Over the last decade, amphetamine use has remained relatively low and stable in most European countries, whereas ecstasy use among 15- to 34-year-olds typically peaked in the early 2000s. During the period 2004–09/10, amphetamine use among young people (15–34) remained generally stable. Among those EU countries with regular surveys, only two reported a change of more than one percentage point in last year prevalence of amphetamine use among the 15–34 age group. The UK reported a decline from 3 % in 2004 to 1.8 % in 2010, whilst Bulgaria reported an increase from 0.9 % in 2005 to 2.1 % in 2008.

Over the period 2003/4–09, no country reported an increase in ecstasy use in the 15–34 age group, while Germany, Spain, Hungary and the United Kingdom reported moderate decreases. In the Czech Republic, ecstasy peaked in 2008 at 7.7 % and decreased to 2.8 % in 2009. These changes may be partly attributed to differences in survey method.

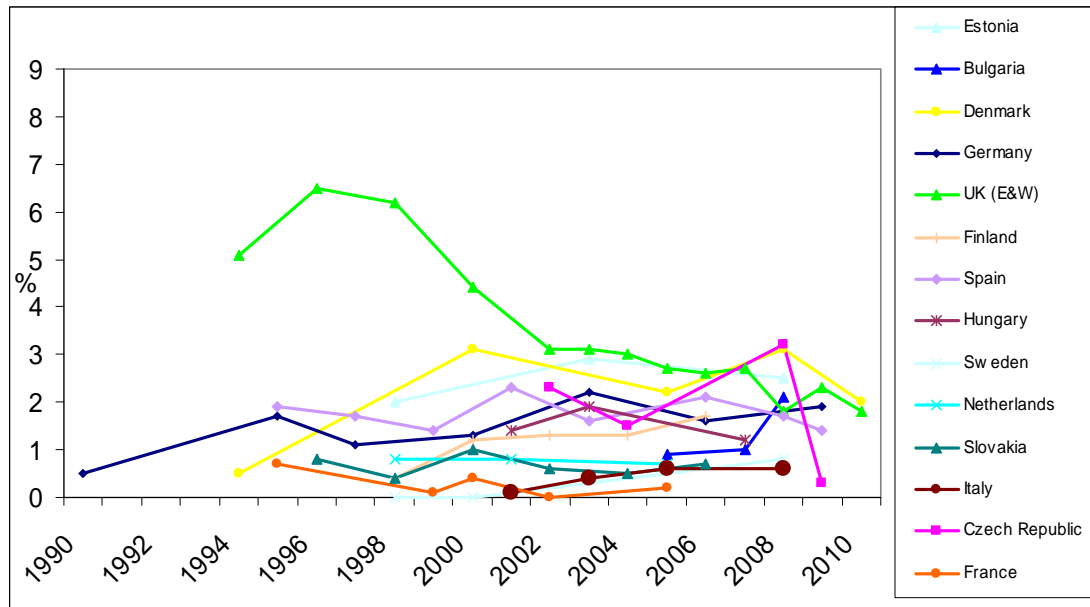
Overall, school surveys suggest little change in the levels of experimentation with these substances among students aged 15 to 16 years. Between 2003 and 2007, most countries



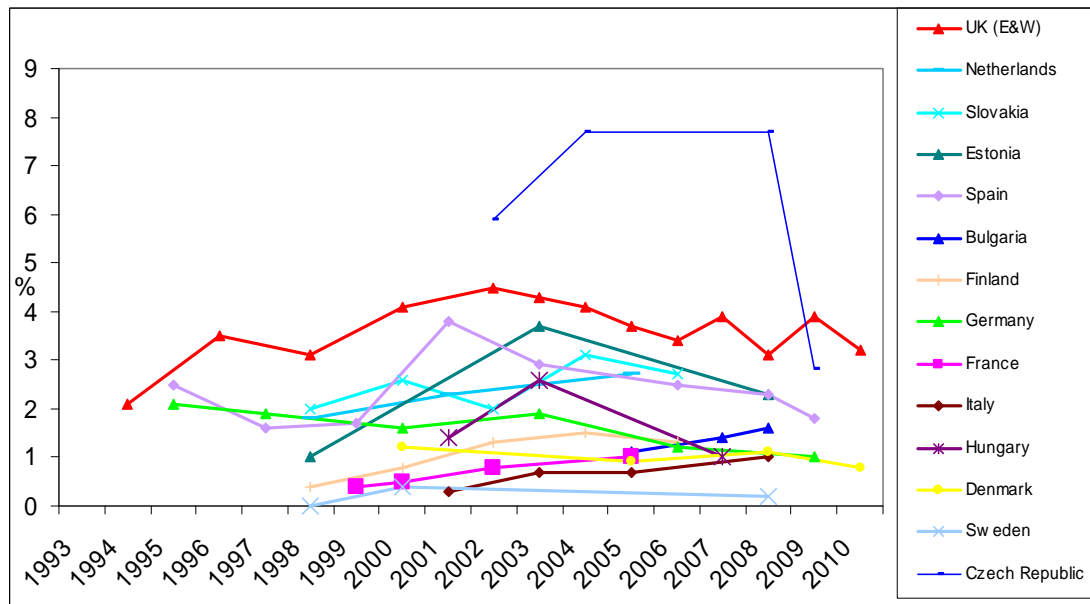
reported mainly low and stable trends in lifetime prevalence of amphetamine and ecstasy among this group.

Figure 3: Trends in last year prevalence of use of amphetamine (top) and ecstasy (bottom) among young adults (aged 15–34)

**Amphetamine**



**Ecstasy**



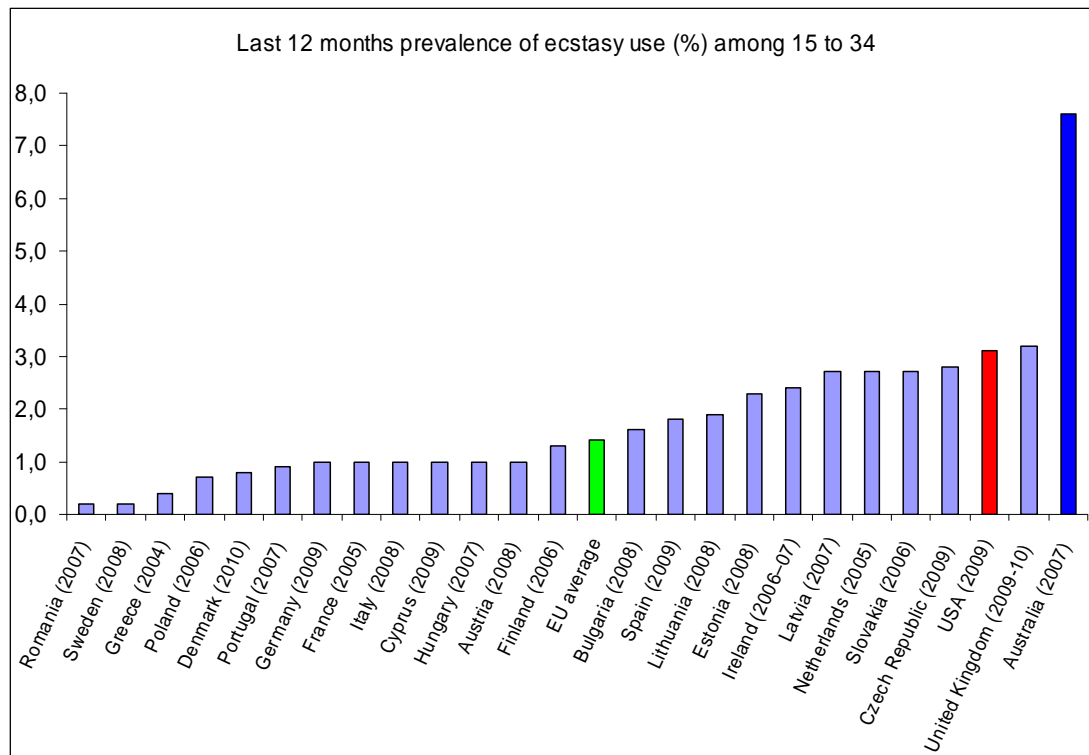
NB: Only data for countries with at least three surveys in the period 1998 to 2009/10 are presented. See Figures GPS-8 and GPS-21 in the 2011 statistical bulletin for further information. UK data presented as 2010 relate to the financial year 2009/10

Sources: Reitox national reports, taken from population surveys, reports or scientific articles.

Ecstasy use among young adults in Australia is reported to be much higher than in Europe while the United States report figures that are close to the countries with the highest

prevalence in Europe (Figure 4). In the US last year ecstasy use (16–34 age group) increased by just under one percentage point from 2.2 % in 2005 to 3.1 % in 2009. There is currently some concern that a new epidemic of ecstasy use may be developing among US school students after annual prevalence increased between 2009 and 2010 (from 1.3 % to 2.4 % in 8th grade and from 3.7 % to 4.7 % in 10th grade).

Figure 4: Last year prevalence of ecstasy use among young adults (aged 15 to 34) in EU Member States, Australia and the United States



NB: Data are from the last survey available for each country. The European average prevalence rate was calculated as the average of the national prevalence rates weighted by national population of 15- to 34-year-olds (2007, taken from Eurostat). US and Australian data have been recalculated from original survey results to the age bands 16–34 and 14–39 years, respectively. Data for Australia refer to 2007, data for Canada and the USA to 2009. See Figure GPS-20 in the 2011 statistical bulletin for further information.

Sources: Reitox national focal points, AIHW (2008), CADUMS (2010), SAMHSA (2009a).

## Cocaine

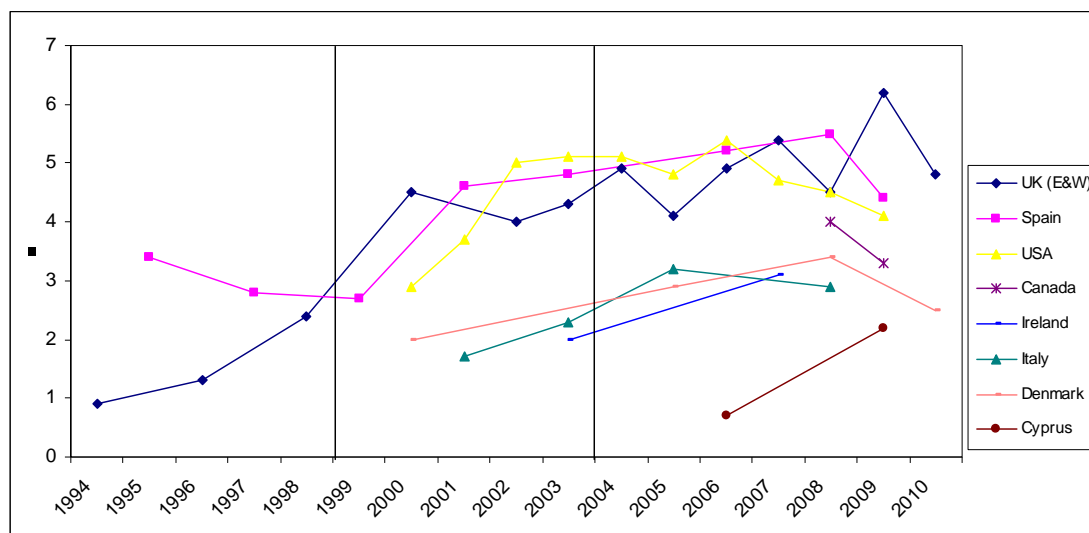
Cocaine remains the second most commonly used illicit drug in Europe, although prevalence levels and trends differ considerably between countries. High levels of cocaine use are observed only in a small number of mostly west European countries, while elsewhere the use of this drug remains limited. 2009 estimates suggest that about 14.5 million Europeans have used cocaine at least once in their life; on average 4.3 % of adults aged 15–64 years. National figures vary from 0.1 % to 10.2 %, with half of the 24 reporting countries, including most central and eastern European countries, reporting low levels of lifetime prevalence (0.5–2.5 %).

Following increases in cocaine use during the last 10–15 years in a small number of countries, the most recent population surveys (2008–10) and targeted studies suggest stabilisation or moderate decreases. However some countries (e.g. Bulgaria, Cyprus and Sweden) with previous very low levels of use, report recent increases although the numbers remain too low to draw robust conclusions.

Among the six countries that report last year cocaine prevalence among young adults (15–34 years) above the EU average of 2.1 %, four countries reported an overall increase over the last 10 years, followed by a decrease in their most recent survey (Denmark, Spain, Italy, United Kingdom), echoing the trend observed in Canada and the United States (Figure 5). The other two countries report increases: Ireland, from 2.0 % in 2003 to 3.1 % in 2007; and Cyprus, from 0.7 % in 2006 to 2.2 % in 2009.

In 17 other countries with repeated surveys, cocaine use is below the EU average of 2.1 % and, in most cases, stable. Targeted surveys in some European countries also suggest a decrease in cocaine use. A study of visitors to ‘coffee shops’ in Amsterdam reported a drop in lifetime cocaine use from 52 % in 2001 to 34 % in 2009, and a drop in last month use from 19 % to 5 % over the same period. A Belgian (Flemish community) study conducted regularly in night-life settings since 2003 reported an increase in last year cocaine use during the period 2003–07 from 11 % to 17 %, followed by a decrease to 13 % in the 2009 study. Similar studies in the Czech Republic report an increase in lifetime cocaine use from 19.3 % in 2007 to 22.6 % in 2009. Because of methodological issues, such changes in use require confirmation in other data sets.

Figure 5: Trends in last year prevalence of cocaine use among young adults (15–34) in the six highest EU Member States, Canada and the USA



NB: See Figure GPS-14 (part ii) in the 2011 statistical bulletin for further information.

Sources: Reitox national focal points;

Canadian Alcohol and Drug Use Monitoring Survey (CADUMS, 2009);

USA: SAMHSA, Office of Applied Studies, National survey on drug use and health, 2009.

## Hallucinogens, GHB and ketamine

Estimates of the prevalence of hallucinogenic drugs, GHB and ketamine use are generally lower than those for the use of cannabis or stimulants. However, use of these substances can be higher in specific groups, settings and geographical areas. In the few countries providing comparable data, most report higher levels of use for hallucinogenic mushrooms than for LSD, among both the general population and school students. Among young adults (15–34 years), lifetime prevalence estimates of LSD use range from zero to 5.5 % and for hallucinogenic mushrooms from 0.3 % to 14.1 %. The overall consumption levels of LSD and hallucinogenic mushrooms are generally low and have been largely stable in Europe during the period 2004–09/10.

Since the mid 90s, recreational use of ketamine and gamma-hydroxybutyrate (GHB) — both anaesthetics and widely used in human and veterinary medicine for 30 years — has been reported in certain settings and among sub-groups of drug users in Europe. General

population survey data on ketamine and GHB use is too limited to provide a picture of trends. Similarly, no overall trends can be identified for GHB and ketamine use from repeat surveys among party-goers or in recreational settings, and the changes reported are in most cases small. Some concern has been noted recently about the health problems that may arise from the chronic use of ketamine, although such consumption patterns appear rare.

## **Problem drug use**

'Problem drug use' is defined by the EMCDDA as 'injecting drug use or long-duration/regular use of opioids, cocaine and/or amphetamines'. Problem opioid use forms the main component of problem drug use in most of the European Union, however, it should be noted that in the Czech Republic, Slovakia and Finland the majority of problem drug users are (meth)amphetamine users. In order to describe trends among problematic drug users in European Member States, two complementary epidemiological indicators have been used: the Problem Drug Use Indicator (PDU) and the Treatment Demand Indicator (TDI) <sup>(2)</sup>. The PDU indicator was developed to estimate the number of problem drug users and to capture the most problematic and harmful forms of drug use. Due to low prevalence and the mostly hidden character of the phenomenon, it requires use of specific indirect methods to estimate the size of the population of problem drug users.

The Treatment Demand Indicator collects information on people entering specialised drug treatment for their drug use and it can be used as a complement to the PDU, since it provides indirect information on trends of the most problematic form of drug use and on the characteristics of users entering drug treatment. Although there is a delay between onset of 'problem use' and entering treatment, and some limitations in data coverage, data on treatment demand provide a valuable picture of the more problematic users in the community.

### **Problem opioid use**

Heroin is the main opioid used in most of the European Union, but in a few countries use of other opioids (e.g. fentanyl, buprenorphine) prevails. Given the relatively low prevalence and the hidden nature of problem opioid use, statistical extrapolations are required to obtain prevalence estimates from the available data sources. It has been estimated that the average prevalence of problem opioid use in European Union in 2009 was between 3.6 and 4.4 cases per 1 000 population aged 15–64. This corresponds to some 1.3 million (range 1.3–1.4 million) problem opioid users in the European Union.

In countries where at least one national estimate is available since 2004 (16 out of 27 countries), prevalence of problem opioid use varies between one and eight cases per 1 000 population aged 15–64. The countries reporting the highest well-documented estimates of problem opioid use are Ireland, Italy, Luxembourg and Malta, while the lowest are reported by the Czech Republic, the Netherlands, Poland, Slovakia and Finland. Only Hungary reports less than one case per 1000 population aged 15-64.

Heroin remains the main reason for entering drug treatment in the European Union, with primary heroin users accounting for 46 % and users of opioids other than heroin for 5 % of all drug clients reported to the TDI in 2009. This reflects the prevalence of problem drug use in the European countries but also the nature of specialised drug treatment which has historically been mainly organised around the needs of opioid users.

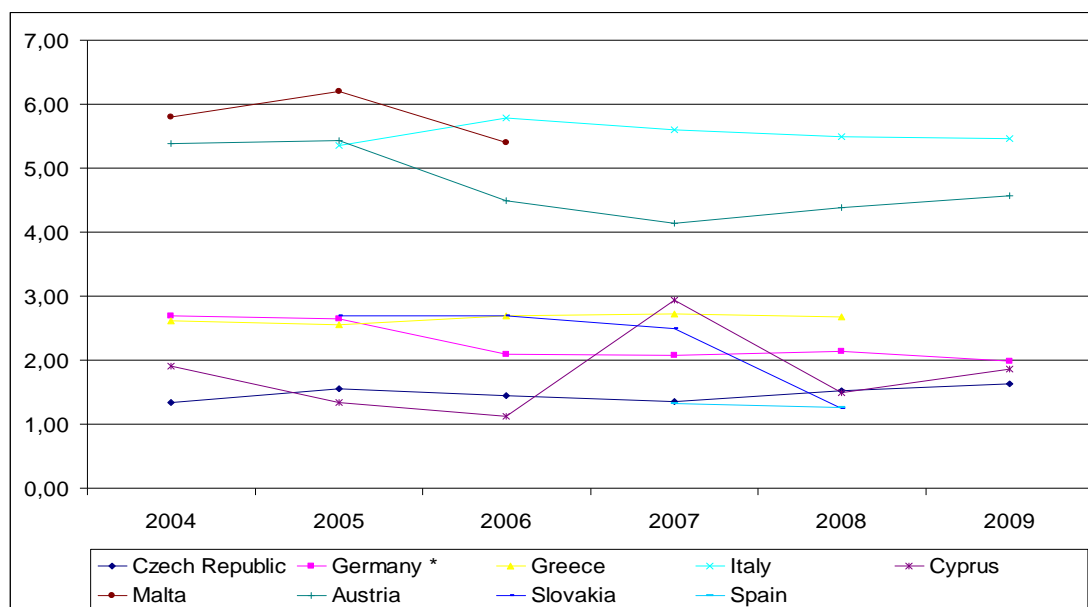
Overall European estimates of the number of problem opioid users have remained stable between 2004 and 2009 (see Figure 6). This is due in part to the limited availability of new data in many European countries and also to the limited sensitivity of these estimations to detect changes in short periods of time. However, national estimates also show a relatively stable situation between 2004 and 2009 in those countries with repeated estimates. Austria is

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<sup>(2)</sup> See [www.emcdda.europa.eu/themes/key-indicators](http://www.emcdda.europa.eu/themes/key-indicators)

the only country to report a significant decrease in number of problem opioid users between 2005 and 2007, although the situation appears to have stabilised since 2007.

Figure 6: Estimated trends in the prevalence of problem opioid use — 2004 to 2009 (rate per 1 000 population aged 15 to 64): Combined estimates per country



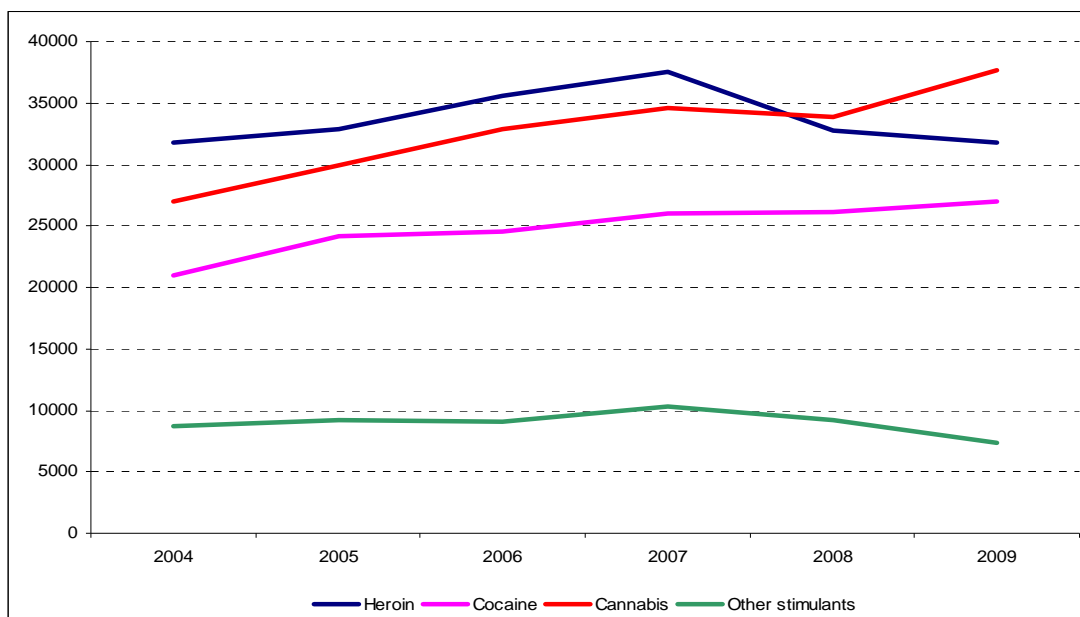
Source: Reitox national focal points; based on Table PDU-6 of 2011 Statistical Bulletin.  
<http://www.emcdda.europa.eu/stats11/pdutab6b>

Analysis of trends in treatment demand indicate that the decrease in number of clients entering treatment for primary heroin use observed in many countries since the late 90s seems to have levelled off since 2003. The reported number of these clients increased during the period 2004–09, from around 123 000 to around 143 000 but this increase is mainly attributable to repeated admissions and not to new users, as well as to improvements in data registration and expansion of drug treatment in general. The number of heroin users entering treatment for the first time in their life remained stable (see Figure 7), while the proportion of heroin clients among the new clients decreased during the period. In several Member States that joined the European Union in 2004 or after, the decrease in heroin treatment admissions has occurred later, probably due to the later heroin ‘epidemic’ in those countries. Opioids other than heroin are increasingly reported by treatment entrants in some European countries, for example: buprenorphine in Finland, fentanyl in Estonia, methadone in Denmark, and opioid analgesic in Sweden.

Changes have also been noticed in the characteristics of drug users in treatment in Europe. The proportion of injectors among reported opioid clients decreased from 59 % in 2004 to 41 % in 2009, while during the period 2003–07, the proportion of opioid clients aged 40 years or more increased from around 21 % to 30 % <sup>(3)</sup>.

<sup>(3)</sup> Data refer to the interval 2003–07 from the Selected issue on older drug users. See 2010 EMCDDA Annual report, Selected issue on older drug users and 2010 statistical bulletin.

Figure 7: Trends in reported number of new clients entering specialised treatment by primary drug used, from 2004 to 2009



Source: Reitox national focal points; Figure TDI-1 part ii of 2011 Statistical Bulletin.

Comparisons between the European Union and other countries have to be made with caution as definitions of target populations may vary. According to UNODC, the prevalence of problem opioid use per 1 000 population aged 15–64 is higher in the USA (5.8 cases) and Canada (5.0 cases) <sup>(4)</sup> than in Europe. The same is true for Australia, where estimates of problem opioid use identify 6.3 cases per 1 000 population aged 15–64 (Chalmers et al. 2009).

In the countries neighbouring the EU, the largest population of opioid users is estimated to be in the Russian Federation, with estimates ranging between 1.5 and 6 million users (UNODC, 2005). A treatment multiplier method has resulted in an estimate of 1.68 million problem opioid users, which translates into 16 per 1 000 population aged 15–64 (UNODC, 2009). Ukraine has probably the second largest opiate using population in eastern Europe with an estimate of between 323 and 423 thousand opiate users (10–13 per 1000, UNODC, 2009).

### Injecting drug use

Available data indicate an overall decrease in opioid injection and in particular in heroin injection in Europe in recent years. However, the limited data and, in some cases, wide confidence intervals make drawing conclusions on time trends in the prevalence of injecting difficult. Estimates of the prevalence of injecting drug use, available from 13 EU countries, show large differences between countries, with estimates ranging from less than one, to five cases per 1 000 population aged 15–64. Estonia is an exception, reporting an exceptionally high level of 15 cases per 1 000 <sup>(5)</sup>.

Only the Czech Republic, Greece, Cyprus, Hungary and the United Kingdom provide data for successive years. The estimates for the United Kingdom show a significant decrease in the prevalence of injecting drug use between 2004 and 2006. The Czech Republic reported an increase in injectors, mostly methamphetamine users, between 2004 and 2009. Significant time trends were not detected in the other three countries.

<sup>(4)</sup> Estimate based on the household survey, may include non-medical use of prescription opioids.

<sup>(5)</sup> Original age range of study in Estonia was 15–44, rates have been adjusted to 15–64.

Injecting is reported as main route of administration by 41 % of opioid clients entering specialised drug treatment. However, the proportion varies widely in EU countries, from 8 % in the Netherlands to 94 % in Romania. Most European countries have reported a decrease of the proportion of injectors among primary heroin users entering treatment between 2004 and 2009. The few countries where this is not the case (Bulgaria, Lithuania, Hungary, Romania, Slovakia <sup>(6)</sup>), are mostly amongst those countries reporting the highest proportions of opioid users among clients entering treatment.

### **Problem cocaine use**

There are currently no overall estimates of the number of problem cocaine users in Europe. Problem cocaine use is limited to a small number of EU countries, and cocaine users are less likely to enter conventional treatment services.

2009 data indicates cocaine use to be the third most common reason for entering treatment in Europe (after heroin and cannabis) accounting for 17 % of all treatment demands. Among those who enter treatment for the first time, the proportion of cocaine users is higher (23 %). Wide differences exist between countries in the proportion and number of primary cocaine clients, with the highest levels reported by Spain, Italy, the Netherlands and the United Kingdom. Together these four countries account for around 85 % of all reported cocaine clients.

Crack cocaine use has been a cause of concern in Europe for some years. Despite worrying reports usually based on local studies, analysis of EU-wide treatment entry data indicates that the crack problem remains limited to the United Kingdom and to a lesser extent the Netherlands.

Trend data on estimates of problem cocaine use are available only for Italy, and these show a gradual increase between 2005 and 2009. Data on problem crack cocaine use are only available for England and show no clear trend.

Data from the treatment demand indicator show that the number of clients entering drug treatment for primary cocaine use has been increasing in Europe for several years; the absolute number increased by more than 45 % between 2004 and 2009. Over the same period, the number of cocaine clients entering treatment for the first time increased by almost a third. In the countries that have the highest proportions of cocaine clients (Spain, the Netherlands) the number of clients entering treatment has stabilised in recent years, while most of the increase in treatment demand can be linked to countries in which treatment demand for cocaine is a more recent phenomenon.

### **Problem amphetamine(s) use**

In a few European countries, the use of amphetamine or methamphetamine, often by injection, accounts for a substantial proportion of the overall number of problem drug users and those seeking help for drug use. Only a small proportion of those entering treatment in Europe report stimulants other than cocaine as their primary drug: around 5 % of all drug clients in 2009 entered treatment for stimulants other than cocaine, primarily amphetamines. Countries with the highest proportion of amphetamine clients are Poland, Sweden and Finland, whilst among those entering treatment for the first time in their life the highest proportion is reported in Latvia (followed by Poland, Finland and Sweden). Methamphetamine is reported as the primary drug by a large proportion of clients entering treatment, including among clients entering treatment for the first time in their life, in the Czech Republic (more than 60 %) and Slovakia (more than 30 %), where use of this drug has been historically concentrated.

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<sup>(6)</sup> Bulgaria: from 79.6 % to 81.5 %; Lithuania: from 97.9 % to 99.3 %; Hungary: from 71.1 % to 72.4 %; Romania: from 93.1 % to 94 %; Slovakia: from 78.2 % to 84.7 %.

Indirect estimates of problem amphetamine use are not available in any European country in the 2004–09 period. Numbers of amphetamine users entering treatment between 2004 and 2009 have remained stable in most countries, with a slight decrease among the clients who entered treatment for the first time in their life. This is attributable mainly to a decrease in the number of new clients entering treatment for primary amphetamine use in Finland and Sweden.

The estimates of problem use of methamphetamine in the Czech Republic and Slovakia remained stable between 2004 and 2008. There were significant changes reported in 2009 that might be attributable to methodological artefacts (the Czech Republic) or changes in the treatment organisation (Slovakia). In the ten years between 1999 and 2009, both countries reported an increase in the number and proportion of people who have entered treatment for the first time for problems relating to methamphetamine; however this trend seems to have stabilised between 2007 and 2008. Methamphetamine has also appeared on the drug market in other countries in recent years, particularly in the north of Europe (Latvia, Sweden and, to a lesser extent, Finland), where it appears to have partially replaced amphetamine, the two substances being virtually indistinguishable to users.

### **Daily cannabis use**

Cannabis dependence or intensive use is not included in the current EMCDDA definition of problem drug use. Information on intensive use is derived respectively from general population surveys and from treatment demand data. Survey data from 13 European countries, collated between 2004 and 2007 and including over 80 % of the EU population, estimated that about 1 % of the 15- to 64-year-olds in the EU were using cannabis daily or almost daily (20 days or more in last 30 days), accounting for more than one fifth of those who used cannabis in the last month. Cannabis is the second most frequent reason for entering treatment in European Union, accounting for 23 % of clients entering drug treatment in the network of centres reporting to EMCDDA. There are considerable differences across countries, related in part to levels of cannabis use and also to referral and admission practices in treatment facilities.

In terms of intensive cannabis use, information on trends is very limited due to fact that reporting is not yet standardised and only one data collection point is available in most countries. When looking at treatment demand data for the period of 2004–09, among the 18 countries for which data are available, most countries report an increase in the proportion of clients entering treatment for the first time in their life because of cannabis use. For the period 2004–09, in the 18 countries for which data are available, the number of primary cannabis users among those entering treatment for the first time in their life increased by about 41 % from 27 000 to 38 000. As a proportion of all clients entering treatment for the first time, the number of cannabis clients has increased from 31 % to 36 % over the same period. The most recent figures (2008–09) show a continuation of this increasing trend in the majority of reporting countries.

## **Drug-related infectious diseases**

### **HIV**

HIV and viral hepatitis (B, C) are among the most serious consequences of injecting drug use. Newly reported infections with HIV have strongly declined in Europe over the last decade, possibly the result of decreases in both injecting drug use prevalence and in risk behaviour.

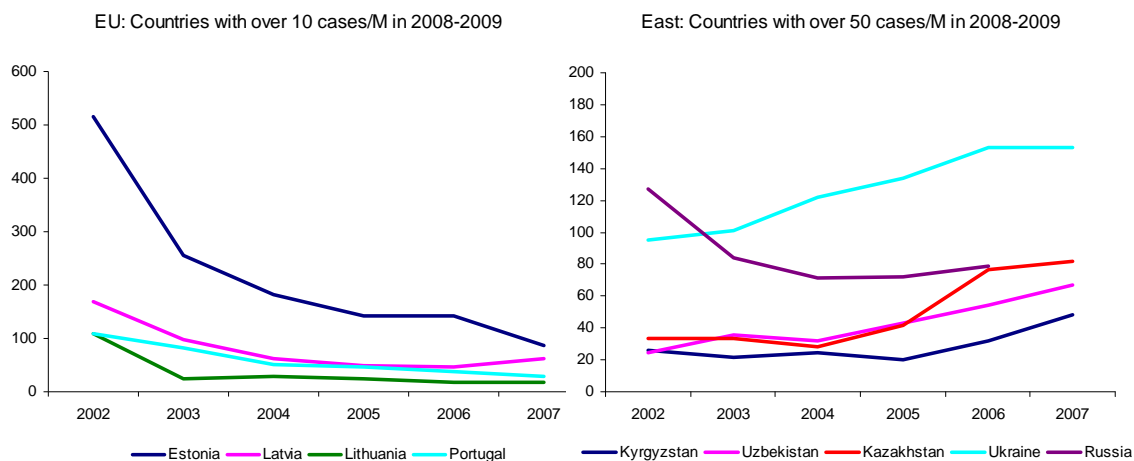
Between 2004 and 2009, trends in the five EU countries reporting the highest rates of newly diagnosed infections in injecting drug users (Estonia, Spain, Latvia, Lithuania, Portugal), show that three of these countries have continued to report decreasing rates, whilst Estonia and Lithuania reported an increase in the most recent period (2008–09). Although still at a much lower level, a continued increasing rate is also observed in Bulgaria. However, there are indications of continued potential for HIV outbreaks among injecting drug users in some



countries, with some recent worrying new developments in Greece and Romania. In July 2011, Greece — historically a low HIV-prevalence country — reported a large outbreak in new HIV infections among drug injectors. In October 2011, a notable increase in new HIV infections was identified among drug users in Romania.

An analysis of trends in newly diagnosed HIV cases among injecting drug users in the WHO European region showed considerable differences in trends among injecting drug users in the West (low and declining) compared with the eastern part of the region (see Figure 8) and suggested an association with the coverage of interventions. Although these eastern countries are not EU Member States, this trend amongst neighbouring countries remains a cause for concern.

Figure 8: HIV cases newly diagnosed in injecting drug users per million population, in the four EU Member States with the highest rates and in eastern countries of the WHO European region 2002–07



Sources: ECDC/WHO 2010; Wiessing et al., Eurosurveillance, 2008; Russian data are from EuroHIV 2007.

Between 2004 and 2009, HIV prevalence estimates in injecting drug users (national or sub-national data) remained unchanged in 19 countries. In addition, five countries showed significant decreases and two countries reported increases. Despite generally stable or declining trends in HIV prevalence among injecting drug users in Europe, prevalence differs widely between countries, and infections are concentrated in the few countries that have experienced large epidemics in injecting drug use. This has important consequences for timely anti-viral treatment provision to infected injecting drug users in those countries. The countries reporting HIV prevalence of over 10 % amongst injecting drug users are Estonia, Spain, Italy, and Portugal.

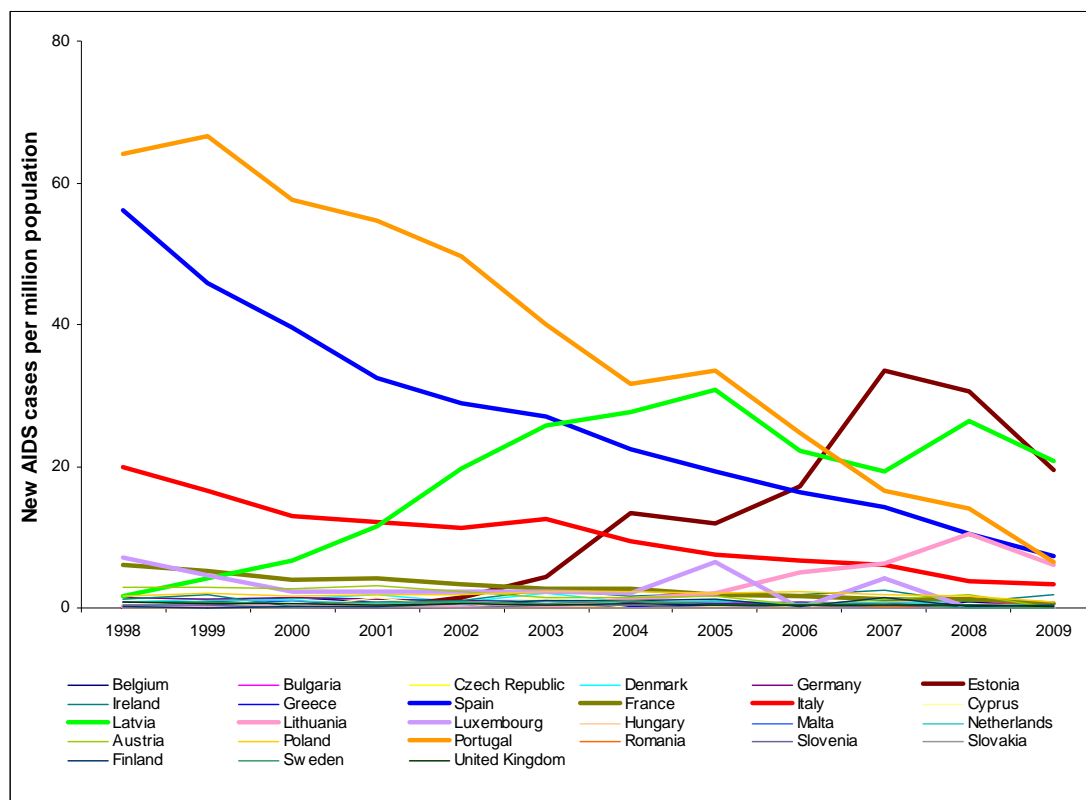
## AIDS

Trends in the incidence of AIDS, though a poor indicator of HIV transmission, can be important for showing the new occurrence of symptomatic disease. High incidence rates of AIDS may indicate that many injecting drug users infected with HIV do not receive highly active antiretroviral treatment (HAART) at a sufficiently early stage in their infection to obtain maximum benefit from the treatment.

Latvia is now the country with the highest incidence of AIDS related to injecting drug use, with an estimated 20.8 new cases per million population in 2009, down from 26.4 new cases per million in 2008. Relatively high AIDS incidence among injecting drug users is also reported for

Estonia (19.4), Spain (7.3), Portugal (6.6) and Lithuania (6.0). Among these countries, the trend 2004 to 2009 was downward in Spain and Portugal, but not in Estonia and Lithuania (7).

Figure 9: AIDS incidence among injecting drug users by country and year of diagnosis, cases per million, 1998 to 2009



Source: ECDC/WHO; based on Table INF-1 of 2011 Statistical Bulletin.

## HCV

HCV infection is highly prevalent among injecting drug users in most EU countries. High prevalence is found in both young and new injecting drug users, suggesting high transmission rates.

Over the period 2004–09/10 in the EU countries where it is possible to establish trends in HCV prevalence, some overall decline seems to be occurring, with decreases in eight countries, increases in one (Cyprus) and mixed trends in four. Caution is warranted given the limited geographical coverage and/or sample size of a number of these studies.

Notification data for hepatitis C cases also suggest a decline, although there are problems in interpreting these data (8). Notification data suggests that a considerable proportion of all HCV cases in Europe are attributable to injecting drug use; 63 % of all HCV cases and 38 % of acute HCV cases notified, where information on transmission risk is available. For hepatitis B infection, injecting drug users represent 20 % of all notified cases and 26 % of acute cases with information on risk category.

(7) See Figure INF-1 and Table INF-104 (part ii) in the 2011 statistical bulletin.

(8) Problems include substantial underreporting and under-diagnosis, difficulties in distinguishing chronic from acute cases, and the influence of testing activities.

## Drug-related deaths

The EMCDDA has defined an epidemiological indicator with two components to monitor mortality: deaths directly caused by illegal drugs (also called drug-induced deaths or overdoses) and mortality due to all causes among problem drug users. The source for the first and core component (drug-induced deaths) is national, population-based statistics on deaths directly attributable to use of drugs of abuse, namely general mortality statistics, and special registries (e.g. police or forensic registries). The source for the second component (mortality) is primarily longitudinal cohort studies amongst drug users.

### Drug-induced deaths

Drug-induced deaths (or overdoses) are one of the major causes of avoidable death among young people in Europe. Drug-induced deaths increased markedly during the 1980s and early 1990s, paralleling the increase in heroin use and drug injection, and have thereafter remained at historically high levels. Between 2000 and 2003, most EU countries reported decreases, followed by subsequent increases from 2003 until 2008. Drug-induced deaths accounted for 3.7 % in 2004 <sup>(9)</sup> and 4 % in 2009 of deaths of Europeans aged 15–39 years. In 2009, the population mortality rate due to drug-induced deaths was on average 21 per million aged 15–64, compared with 20 per million in 2004. In 2009, six countries had a mortality rate due to drug-induced deaths above 40 deaths/million, compared to 4 countries in 2004.

The number of reported drug-induced deaths slightly increased in the 2004–09 period from around 6 450 in 2004 to an estimated 7 000 in 2009 (based on provisional data) <sup>(10)</sup>. The gender distribution has been stable in the last years, with males accounting for around eight in ten cases. Most victims are in their mid-thirties but the available data point to an ageing cohort of problem opioid users in Europe. The proportion of drug-induced deaths in the under 25s was 12 % in 2009 compared to 16 % in 2004. Drug users aged 40 or more make a sizable and increasing proportion of all reported drug-induced deaths in Europe Union. They accounted for 29 % of all cases reported in 2004 and for 35 % in 2009 (Figure 10).

Opioids, mainly heroin or its metabolites, have been consistently present in the majority of drug-induced deaths reported in Europe over the 2004–09 period. In the 22 countries providing data in 2008 or 2009, opioids accounted for the large majority of all cases, with five countries reporting proportions of over 90 %. Substances often found in addition to heroin include alcohol, benzodiazepines, other opioids and, in some countries, cocaine. This suggests that a substantial proportion of all drug-induced fatalities occur in a context of polydrug use.

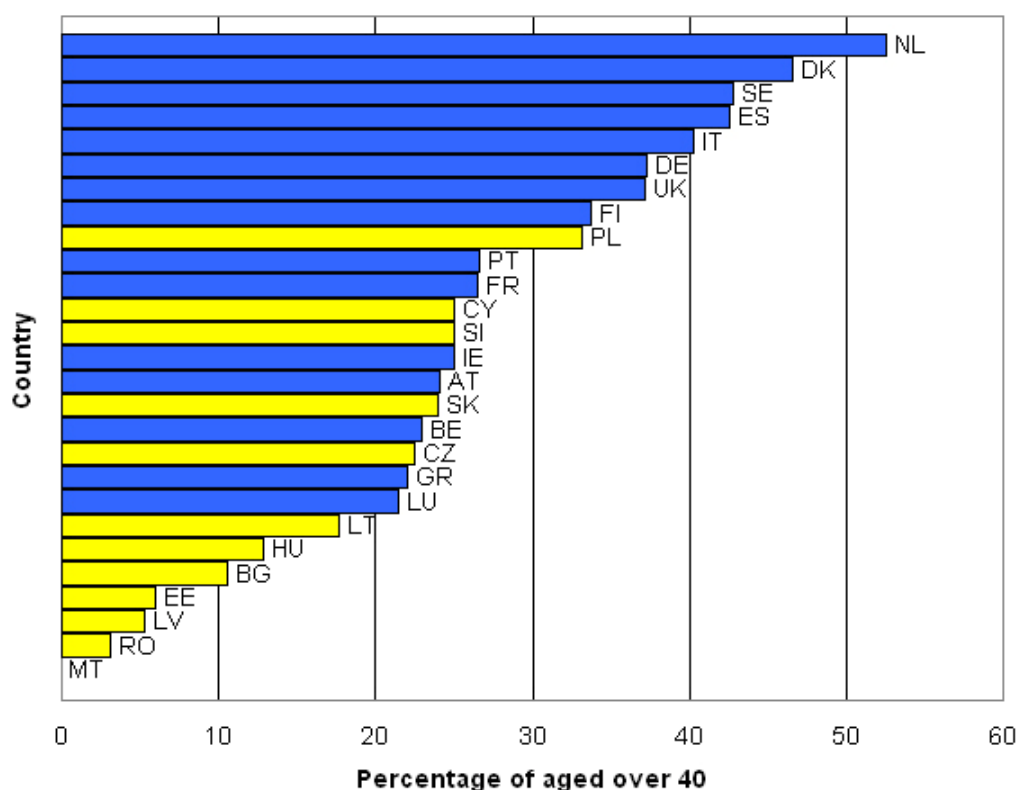
An estimated 10 000 to 20 000 problem opioid users could be dying each year in Europe, with overdose deaths representing only around half of the estimated mortality found among problem drug users who are also at a higher risk of death caused by disease, suicide, trauma and violence.

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<sup>(9)</sup> No DRD data available for Denmark for the year 2004. No comparable data available for Portugal 2004 and 2009. For Italy, Eurostat data from 2003 has been used.

<sup>(10)</sup> 24 out of 27 countries with comparable data for both years (Belgium, Denmark and Portugal missing). For Ireland, Greece, Spain, France, Poland, Slovakia and Sweden, 2008 data was used as it was the most recent data point.

Figure 10: Proportion of reported cases of drug induced deaths aged 40 or more for the most recent reporting year (pre-2004 Member States in blue)



With regards to overall mortality among drug users, depending on recruitment settings and enrolment criteria (e.g. injecting drug users, heroin users), most cohort studies show mortality rates in the range of 1–2 % per year among problem drug users. These mortality rates are roughly 10 to 20 times higher than those for the same age group in the general population. A recent estimate suggests that between 10 000 to 20 000 problem opioid users could be dying each year in Europe. The relative importance of the different causes of death varies across populations, between countries and over time. Generally, though, the main causes of death among problem drug users in Europe, over the last years is drug overdose, accounting for up to 50–60 % of deaths among injectors in countries with low prevalence of HIV/AIDS. The number of HIV/AIDS related deaths attributable to injecting drug use has been slightly decreasing with an estimate of around 2 000 deaths in 2009 compared to around 2 500 in 2004. The number of deaths due to HIV/AIDS attributable to sharing of injection equipment decreased in all EU countries since the introduction of HAART in 1996. In addition to HIV/AIDS, other frequently reported causes of deaths include suicide, accidents, and liver diseases related to hepatitis infection and alcohol use.

The number of drug-induced deaths reported, and the trends over time, can be influenced by the prevalence and patterns of drug use (injection, polydrug use), the age and the co-morbidities of drug users and the availability of treatment and emergency services, as well as the quality of data collection and reporting. Improvements in the reliability of European data have allowed for a better description of trends and most countries have now adopted a case definition of drug-induced deaths in line with that of the EMCDDA. Nevertheless, caution must be exercised when comparing countries as national differences exist in the quality of case ascertainment and reporting practices.

Even more caution is warranted when comparing EU data with other regions in the world. A recent review of mortality studies found that mortality rates among drug users were around 1.1 % per year in Australia and 1.7 % in North America (Degenhardt 2010). In the USA <sup>(1)</sup>, during 2007 (latest national mortality data available), a total of 38 371 drug-induced deaths occurred, but this number includes many deaths caused by psychoactive medicines, and cannot be directly compared with EU data. US drug-induced mortality rates increased during 2003–07 from 99 to 126 per million population. In the US, a considerable increase of deaths due to pharmaceutical opioids has been reported, often related to pain treatment.

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(<sup>1</sup>) The definition used in the US: 'Drug-induced deaths include all deaths for which drugs are the underlying cause, including deaths attributable to acute poisoning by drugs (drug overdoses) and deaths from medical conditions resulting from chronic drug use. A drug includes illicit or street drugs (e.g., heroin or cocaine), as well as legal prescription drugs and over-the-counter drugs; alcohol is not included'. Note that this is not strictly comparable (it is much broader, caution is needed) to the definition used in Europe. Reference: Drug-Induced Deaths, United States, 2003–07. <http://www.cdc.gov/mmwr/preview/mmwrhtml/su6001a12.htm>

## Chapter 2: Drug supply and new drugs

This chapter reviews the major trends and changes that have taken place since 2004 in the field of drug supply and new drugs in Europe.

### Drug supply

EMCDDA analyses of the drug supply situation in Europe are based on a combination of quantitative and qualitative data. The quantitative data includes reported drug seizures (number of seizures and quantities seized)<sup>(12)</sup>, drug law offences, retail drug prices, purity of heroin, cocaine, amphetamine and methamphetamine, potency of cannabis products, and contents of drug tablets, especially ecstasy. The main source of data is national law enforcement agencies and the data therefore reflect the activities of these agencies, their priorities, resources, constraints and reporting practices. The data can also reflect indirectly the situation of drug supply, including trafficking routes and traffickers' modus operandi but it must be analysed with caution and, wherever possible, in combination with other data.

The EMCDDA obtains qualitative data from national reports provided by the focal points of the Reitox network, European law enforcement agencies including Europol, the academic literature and the press, grey literature and reports published by international organisations such as the United Nations Office on Drugs and Crime (UNODC), the World Customs Organisation (WCO) and the International Narcotics Control Board (INCB). A common limitation of this type of data is that it is often restricted in scope, reflecting local/national situations and/or highly specific issues, which may make it difficult to infer analysis at the European level. Qualitative reports also reflect the priorities, resources and constraints of those authoring them.

### Cannabis products

Cannabis is by far the most consumed illicit drug in Europe and it is difficult to draw a clear picture concerning its supply in Europe given the size and diversity of the market, the variety of products involved (cannabis resin, several types of cannabis herb, and cannabis plants), and the number of countries that produce them (Africa, Asia, the Americas and Europe itself, both EU and non-EU countries). One conclusion that may be drawn from available data is that the supply of cannabis to the EU does not appear to have decreased.

The number of seizures and the quantities of cannabis herb, cannabis resin and cannabis plants have generally increased during the 2004–09 period. Cannabis resin remained the product most seized in Europe, probably due to historical and geographical reasons, and to law enforcement organisation and priorities in key south-west European countries. The strongest increases were however recorded for cannabis herb and cannabis plants while there was a small decrease in the quantities of resin seized. This may reflect an increase in the production of cannabis herb within Europe, which seems to have accelerated in the 2004–09 period, when the number of seizures of cannabis herb more than doubled. The amount of herbal cannabis seized has also increased over the same period from an all-time low of around 50 tonnes in 2004 and 2005. At the same time, the number of seizures of cannabis plants has more than doubled since 2004, reaching an estimated 24 800 cases in 2009 in the 15 pre-2004 EU Member States. Seizures reported by number of plants increased from 0.7

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<sup>(12)</sup> Methodology: a) Data on the number of seizures made in the EU do not include the Netherlands and Poland due to unavailability of data; b) Data on the quantities of drugs seized do not include the Netherlands since the latest data available are from 2007; this also applies to trend analysis and historical data that are provided in the text. Whenever the Netherlands used to be a major seizing country, this is mentioned in the text.

million in 2004 to about 2.4 million in 2007. Available data may point to a decrease in 2008 at the EU level, however this cannot be confirmed due to the lack of recent data from the Netherlands, which has historically reported large quantities. Since 2004, seizures reported by weight of plants have more than trebled, reaching 42 tonnes in 2009, most of which continued to be accounted for by Spain (29 tonnes) and Bulgaria (10 tonnes).

In 2009, about 386 000 seizures of cannabis resin were made, resulting in the interception of an estimated 582 tonnes of the drug: ten times the quantity of herbal cannabis seized. Seizures of cannabis resin in the EU continued to exceed herbal cannabis seizures that year, both in number and amount seized, although the difference is decreasing (especially for the number of seizures)<sup>(13)</sup>. Between 2004 and 2009, the number of cannabis resin seizures increased steadily, while the amount seized has declined overall from an all-time peak of 1 060 tonnes in 2004. Spain is the country seizing the most cannabis resin in the European Union. Over 2004–09, it steadily accounted for about three-quarters of the quantity of cannabis resin seized in the EU, while the proportion of cases reported by Spain increased from 41 % to 56 % over the period.

Data on potency and prices do not indicate changing trends in the European cannabis market but rather suggest a relatively stable situation. The potency of herbal cannabis remained mostly stable or decreased in ten reporting countries and increased in the Czech Republic, Estonia, the Netherlands and Slovakia. Trend data on the potency of locally produced herbal cannabis is available only for the Netherlands, where a decline in the mean potency of 'nederwiet' was observed; from a peak of 20 % in 2004 to 15 % in 2009. Meanwhile, over the period 2004–09, the mean potency of cannabis resin has been diverging in the 14 EU countries reporting sufficient data.

The mean retail price of herbal cannabis ranged in the EU between EUR 2 and EUR 70 per gram in the 20 countries supplying information, with 12 of them reporting prices of between EUR 5 and EUR 10. Over the period 2004–09, the mean retail price of cannabis herb remained stable in most of the 19 countries providing data, and the mean retail price of cannabis resin remained stable or increased, with the exception of Latvia, Hungary, and Poland, where the price decreased.

## Cocaine

With regard to cocaine supply in Europe, no clear trend is discernable and the indicators seem to point in different directions. The number of cocaine seizures in the EU has been rising for the last 20 years (and in the period of the EU strategy from an estimated 61 300 cases in 2004 to an estimated 98 000 cases in 2009), which could indicate that cocaine has become more available in Europe. The total quantity intercepted peaked in 2006 at 110 tonnes and has declined since then to an estimated 49 tonnes in 2009, compared to 74 tonnes in 2004. This fall in the quantities of cocaine seized is largely accounted for by decreases in the amounts recovered in the Iberian Peninsula, especially Spain.

In 2009, the mean purity of cocaine samples tested in the EU ranged between 25 % and 43 % in half of the reporting countries. Overall, cocaine purity declined by an estimated average of 19 % in the European Union in the period 2004–09. Decline in drug purity is usually viewed as an indicator of reduced availability and/or increased demand. Price data do however point in a different direction. The reported mean retail price of cocaine in the EU in 2009 ranged between EUR 50 and EUR 80 per gram in most of the 17 reporting countries. In the period 2004–09, the retail price of cocaine in the European Union declined by an estimated average of 21 %. Such a decline is usually considered as an indicator of increased availability and/or reduced demand.

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<sup>(13)</sup> Due to differences in shipment size and distances travelled, as well as the need to cross international borders, cannabis resin may be more at risk of being seized than domestically produced herbal cannabis.

While available information on seizures, purity and prices do not provide a clear picture regarding cocaine supply in the European Union, one conclusion that may be drawn for the 2004–09 period is that the supply of cocaine to the EU seems to have diversified, with the appearance of new trafficking routes and methods. Trafficking routes that were viewed as secondary or emergent in 2004 now appear to play a more important role. These changes may be partly explained by measures taken at European level and in the Member States in the 2004–09 period. The emergence of Africa, especially West Africa, as a major transit point for cocaine destined to Europe has been identified since the mid-2000s. After an initial period in 2006–08 where major seizures were made on ships in, or near, West Africa, and from flights from West Africa, the number of seizures and quantities of cocaine seized has notably decreased. This decline may reflect some successes of new interdiction efforts, such as the establishment in 2008 of the Maritime Analysis and Operations Centre–Narcotics (MAOC-N), as well as the later establishment of two Regional Intelligence Exchange Centres (RIEC) in Accra (Ghana) and Dakar (Senegal). This decrease is also likely to be a result of changing trafficking methods. Possible innovations include use of southern and eastern Africa as transit areas and a switch away from large maritime shipments to smaller shipments by air. In addition, traffickers are increasingly relying on sophisticated methods of concealment, such as incorporation of cocaine in so-called ‘carrier’ materials (e.g. beeswax, plastic, clothing, fertiliser, etc.) before export, then extracting it in clandestine laboratories inside EU borders. Some 30 of these ‘secondary extraction’ laboratories were uncovered in the EU in 2008. These perform a different function from laboratories in South America which extract cocaine from coca leaves or coca paste.

These ‘secondary extraction labs’ may also be used to process concealed cocaine trafficked on another emerging trafficking route initially detected in the early 2000s: the Balkan/Black Sea Route, where substantial seizures of cocaine, often concealed in containers, have occurred in recent years. Information on the increased involvement of nationals from countries in the Balkans, including Bulgaria and Romania, and reports of increased involvement of local organised criminal groups in the cocaine trade have also been reported. This suggests that the infrastructure established in this region for cigarettes and heroin trafficking, may now also be being used for the shipment of cocaine.

Indicators do not point as yet to a strongly emerging cocaine problem in most east European countries. A potential issue here is the existence of established amphetamine drug trafficking networks around the Baltic Sea, which could provide the necessary infrastructure and resources for a growth in cocaine trafficking and distribution. Possible early-warning signals are an increasing number of Member States in eastern and central Europe, including Bulgaria, the Czech Republic, Latvia, Lithuania, Poland and Romania, now reporting that some of their nationals are being used as cocaine couriers by criminal organisations.

The emergence of new routes does not mean that the more ‘traditional’, transatlantic, sea and air cocaine smuggling itineraries <sup>(14)</sup> are less utilised. Most of the cocaine reaching the European consumer markets in the late 2000s still travels along these routes. This is shown by the fact that Spain has remained, in 2009 as in 2004, the country reporting both the highest number of seizures and the largest quantity of cocaine seized in the EU (just under half the total in both cases) <sup>(15)</sup>. What is observed is a diversification of cocaine smuggling routes, entry points and trafficking methods as a response to control efforts implemented between 2004 and 2009 (and earlier), and which is likely to require additional, and more innovative, control measures in the future.

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<sup>(14)</sup> From South America to Europe’s Atlantic coast, especially the Iberian Peninsula but also Belgium and the Netherlands, as well as France, the United Kingdom and Ireland, both directly or via the Caribbean, the Azores or the Canary Islands.

<sup>(15)</sup> This analysis is preliminary as data from the Netherlands, which reported the second largest quantity of cocaine intercepted in 2007, are not included in this trend analysis.



## Ecstasy

The supply of ecstasy in the EU has experienced significant changes during the 2004–09 period, especially since 2006. Overall, the trend noted since the beginning of the 2000s of an increase in ecstasy (MDMA, MDA, MDEA) production outside of Europe has been confirmed in the 2004–09 period. The UNODC reports that about half of the global ecstasy output is now produced in North America, Asia, Oceania and South America. However, European traffickers, funds and know-how are reportedly involved in some cases. This geographical displacement is likely to be at least partly linked with enhanced law enforcement efforts and increasingly successful control of the key precursor chemicals in Europe. It also reflects growing ecstasy markets outside of Europe and a willingness of some criminal entrepreneurs, including Europeans, to establish production facilities closer to these consumer markets, thus reducing the costs and risks attached to international smuggling.

Another significant recent development was an apparent sharp decrease in the availability of ecstasy substances (MDMA, MDA, MDEA) in Europe between 2006 and 2009. The number of ecstasy seizures reported in the EU remained stable between 2004 and 2006, and declined since then, while quantities seized in most Member States show a downward trend since 2004. However, it must be stressed that this is a tentative analysis since current EU trends in reported quantities of ecstasy tablets seized cannot be plotted due to the lack of recent data from the Netherlands, the country historically reporting the largest quantity seized and largest number of ecstasy production facilities seized in recent years. There has also been a change in the content of illicit drug tablets in Europe, from a situation where most tablets analysed contained MDMA or another ecstasy-like substance (MDEA, MDA) as the only psychoactive substance, to one where the contents are more diverse, and MDMA-like substances less present. This shift accelerated in 2009, to the extent that the only countries where MDMA-like substances continued to account for a large proportion of the tablets analysed were Italy (58 %), the Netherlands (63 %) and Malta (100 %). Overall, the MDMA content of ecstasy tablets declined in all 13 EU countries with sufficient data to identify trends between 2004 and 2009.

The apparent shortage of MDMA seems to have pushed manufacturers to substitute MDMA for other substances in the 'ecstasy' tablets that they manufacture and eventually sell to European consumers. Thus, amphetamines, sometimes in combination with MDMA-like substances, are relatively common in tablets analysed in Greece, Spain, Hungary, Poland, Slovenia and Croatia. Most of the other reporting countries mention that piperazines, and in particular *m*CPP, were found, alone or in combination with other substances, in a substantial proportion of the tablets analysed.

Trends in price data do not indicate a decline in ecstasy availability in Europe. It is now considerably cheaper than it was in the 1990s, although this is probably explained by scaling up in production methods and competition from other stimulants. Data available for the period 2004–09 suggest that the retail price of ecstasy has continued to fall or has remained stable in 17 out of 19 countries reporting sufficient data. This may be viewed as an indicator that the availability of ecstasy has remained unchanged or has increased but it is more likely to reflect a reduction in prices in order to continue attracting customers despite falling quality of the tablets, which now contain little or no MDMA, MDA or MDEA.

The most likely explanation for the decline in the availability of ecstasy substances (but not necessarily of tablets sold — and seized — as 'ecstasy') between 2006 and 2009 is a shortage, as a result of enhanced law enforcement and international cooperation, of the main precursor chemical traditionally used to manufacture ecstasy in Europe, 3,4-Methylenedioxyphenyl-2-propanone (3,4-MDP2P), also known as PMK. Almost all the PMK used to manufacture ecstasy in the EU has traditionally been imported from a single country, China. Licit international trade in PMK is also small and restricted to a few countries only, all of which has probably enhanced the efficiency of control measures.

Some ecstasy was nevertheless produced in Europe during the shortage, and since early 2010, the availability of ecstasy seems to be increasing again. It is likely that most ecstasy production in Europe is now based on safrole — a major change that has occurred in the 2004–09 period. Safrole is a precursor of PMK, but it is possible to use it to manufacture ecstasy directly. It is obtained from safrole-rich oils, which are essential oils extracted from several vegetal species from South America and, especially, Southeast Asia. While safrole is a scheduled chemical (UN Table I, EU Category 1), there are no binding international rules regarding trade in safrole-rich oils. Safrole is also widely used in the manufacture of perfumes and insecticides, which may diminish the impact of international control efforts. Around 40 shipments of safrole totalling 101 840 litres — two-thirds of which in the form of safrole-rich oils — were reported to the International Narcotic Control Board between November 2009 and October 2010. The Board warns however that reports of suspicious shipments remain 'negligible' compared to the estimated amount of ecstasy illegally produced. Some 1 050 litres of safrole and safrole-rich oils were seized and reported to the INCB in 2009/10, including 929 litres confiscated in Lithuania, while neighbouring Latvia reported seizures of 1 841 litres in 2008. Safrole was also seized in 2010 in the United Kingdom (5 litres) and in the Netherlands (20 litres), where most ecstasy production sites have been dismantled in recent years. Authorities also recently reported that Dutch ecstasy manufacturers have switched to safrole.

The decrease in ecstasy substances recorded in the 2004–09 period is therefore likely to be short-lived, and it has been reported that ecstasy, now made from safrole, is again becoming more available in Europe.

## LSD

Use and trafficking of LSD in the EU is considered marginal. The number of LSD seizures increased between 2004 and 2009 (from an estimated total of 750 cases to 940), while quantities, after a peak in 2005 of over a million units due to record seizures in the United Kingdom, have since been fluctuating at relatively low levels (mostly under 100 000 units)<sup>(16)</sup>. Meanwhile, LSD retail prices have remained stable in most reporting EU Member States since 2004. In 2009, the mean price was between EUR 7 and EUR 11 per unit for the majority of the 10 EU reporting countries. In conclusion, the supply of LSD in the EU seems to have remained stable at low levels between 2004 and 2009.

## Methamphetamine

In Europe, methamphetamine-related problems are much more limited than those related to other stimulants, such as cocaine or amphetamine. Some changes were however observed in methamphetamine supply 2004 and 2009, namely in the north of Europe. Until recently, the supply and use of methamphetamine in Europe was thought to be restricted, for historical reasons, to the Czech Republic, and to a lesser extent the Slovakia. Very limited production, trafficking and use were sporadically reported in other countries but were considered a reflection of experimental use within specific sub-populations such as clubbers and party goers. As in many other major methamphetamine manufacturing areas in the world (e.g. Mexico), the precursor chemicals used to synthesise methamphetamine in Europe were almost exclusively ephedrine and pseudoephedrine.

A significant development emerged around 2006 when large and increasing quantities of methamphetamine began to be seized in countries with shores on the Baltic Sea and in Norway. The quantities seized were several times larger than those reported by the Czech Republic and its neighbours.

In recent years, methamphetamine has also appeared on the drug market in other countries, particularly in the north of Europe (Latvia, Sweden and, to a lesser extent, Finland), where it

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<sup>(16)</sup> This analysis is preliminary, as data for the United Kingdom are not yet available for 2008.

appears to have partially replaced amphetamine, the two substances being virtually indistinguishable to users. Much of this methamphetamine is reported to be manufactured in countries on the southern shores of the Baltic Sea, such as Estonia and Lithuania.

The precursor used to manufacture methamphetamine is Benzyl Methyl Ketone (BMK), also known as 1-Phenyl-2-Propanone (P2P) or as phenylacetone, sourced from the Russian Federation. BMK of Russian origin had been associated mostly with amphetamine production, but it now appears that fairly large quantities of it are used to manufacture methamphetamine.

This development is likely to be the major explanation for the increase in methamphetamine seizures in the 2004–09 period, even if both the number of seizures and the quantities seized are much smaller than for other stimulants such as cocaine and amphetamine. In 2009, over 3 600 seizures of methamphetamine, amounting to about 300 kg of the drug, were reported in the EU. Both the number of seizures and the quantities of methamphetamine seized increased over 2004–09, by a factor of 2.5 for the number of cases and of 8 for the amount intercepted. Purity and price datasets do not, however, confirm changes in supply. Trends in methamphetamine purity are diverging, with six EU countries reporting a decrease over 2004–09, and five an increase. The range of retail prices for methamphetamine in the EU also varied greatly in 2009, in the countries reporting it, from about EUR 10 per gram in Bulgaria, Lithuania and Slovenia, to about EUR 70 per gram in Germany and Slovakia. The limited number of countries reporting trend data on methamphetamine retail prices does not allow a trend analysis for the EU.

## Amphetamine

Quantitative datasets indicate overall stability in the supply and availability of amphetamine in the EU in the 2004–09 period. The number of amphetamine seizures has remained stable, over the period at between 31 000 and 35 000 although the quantities seized have increased. This remains a preliminary analysis, as data from the Netherlands, a major seizing country within the EU, has not been available in recent years. Meanwhile the purity and price datasets show no clear trend. The purity of amphetamine samples intercepted in Europe has continued to vary widely, ranging from less than 8 % in Bulgaria, Hungary, Austria, Portugal, Slovenia and Slovakia, to more than 20 % in countries where amphetamine production is reported, or where consumption levels are relatively high (Estonia, Lithuania, the Netherlands, Poland, Finland). Over the five-year period, the purity of amphetamine fell in all 17 EU countries reporting sufficient data for trend analysis with the exception of Luxembourg, where it increased. A fall in drug purity is usually viewed as a sign that availability of the drug is decreasing. However, this is counterbalanced by the price dataset, which suggests a different trend. In 2009, the mean retail price of amphetamine in the EU ranged between EUR 10 and EUR 17 a gram for 8 of the 13 reporting countries. Amphetamine retail prices either decreased or remained stable in all 16 countries reporting data over 2004–09, except in the Netherlands where they increased over the period and Slovenia, which reported a major increase in 2009. Decreasing prices are usually viewed as a reflection of increasing drug availability.

Europe is a major amphetamine producing region with distribution networks serving both the European market and exporting amphetamine outside Europe's borders, in particular to the Middle East and the Arabian Peninsula where amphetamine manufactured in south-east Europe is marketed in the form of illicit 'Captagon' tablets.

In Europe, although some amphetamine is produced in small scale 'kitchen-type' laboratories, it is likely that the vast majority is manufactured in middle to large, sometimes 'industrial size', facilities in the hands of criminal organisations. While there has been a decrease in the number of amphetamine production facilities dismantled in Europe in recent years, forensic intelligence suggests that there has been an increase in the production capacity of the facilities seized in key producer countries, especially the Netherlands and to a lesser extent Belgium and Poland.

Although the overall European picture indicates a relative stability in amphetamine supply, a number of new developments emerged in the 2004–09 period. The first development, which began to emerge in 2007, is an increase in the production of Captagon outside Europe and closer to the consumer markets in the Middle East and Arabian Peninsula. A number of seizures of production facilities, production equipment and large consignments of Captagon tablets seem to suggest that less Captagon is now produced in Turkey and, especially, Bulgaria, and more in Middle East countries such as Syria, Lebanon, Jordan and even in the Arabian Peninsula, including Saudi Arabia which is the largest consumer market for the drug.

The second significant development relates to the precursor most frequently used to manufacture amphetamine in Europe: Benzyl Methyl Ketone (BMK). Up until late 2004, the BMK used in European production facilities was almost exclusively sourced from China and smuggled by Chinese organised criminal groups in large quantities into major European Union ports including Antwerp, Hamburg and Rotterdam. In 2004, BMK seizures in China totalled 23 345 litres, while in 2003 and 2004, record seizures of 6 109 litres and 9 297 litres of BMK, respectively, were made in Europe, especially in the Netherlands and Poland. According to Europol, a relatively new trend in BMK trafficking has been identified from mid-2004. Sourced from Russia, BMK is smuggled via Latvia, Belarus, Lithuania, Finland, Estonia, Denmark, Poland and Germany, for use in large-scale amphetamine production sites in the Netherlands and to a lesser extent in Belgium and Poland. Forensic profiling information indicates that the vast majority of the BMK seized in the European Union since 2004 has a stable and unique impurity or marker pattern, identified via the presence of 4-Tert-Butyl, the so-called 'TB-factor' (TB-BMK), which thus far is unique to BMK of Russian origin.

In addition, enhanced international cooperation and law enforcement appear to have led to the illicit manufacture of precursors within Europe using so-called 'pre-precursors' such as phenylacetic acid or benzaldehyde. The International Narcotic Control Board has reported the dismantlement of clandestine amphetamine production sites using phenylacetic acid in Germany and Spain in 2010, as well as a large seizure of more than a ton of alpha-phenylacetoacetonitrile, a precursor of BMK, in Belgium in June 2010 (INCB, 2011). Due to concerns over an increase in global seizures since 2006, phenylacetic acid was rescheduled in January 2011 from Table II to Table I of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances 1988 (INCB, 2011), the same level as BMK.

## Heroin

The supply of heroin to European markets was relatively stable over the 2004–09 period. In 2009, an estimated 54 200 seizures resulted in the interception of an estimated 7.6 tonnes of heroin in the EU. Data for the years 2004–09 show an estimated 26 % increase in the number of heroin seizures, whilst the amount seized remained relatively stable during this period. The United Kingdom continued to report the highest number of seizures over 2004–09. Meanwhile, the mean purity of brown heroin tested in 2009 in the EU ranged between 16 % and 32 % for most reporting countries; lower mean values were reported in France (14 %), Austria (retail only, 13 %) and higher ones in Malta (36 %) and Romania (36 %). Between 2004 and 2009, there was no EU trend in brown heroin purity: it increased in three EU countries, remained stable in four others and decreased in three. The mean purity of white heroin was higher in each of the two EU countries reporting data: 48 % in Denmark and 25 % in France. The low number of countries reporting data mean it is not possible to carry out trend analysis on the purity of white heroin in the EU.

The retail price of brown heroin continued to be higher in the Nordic countries than in the rest of the EU, with Sweden reporting a mean price of EUR 135 per gram and Denmark EUR 95 in 2009. It ranged between EUR 40 and EUR 62 per gram in half of the reporting countries. Over the period 2004–09, the retail price of brown heroin decreased in half of the 14 EU Member States reporting time trends. In the three countries reporting the retail price of white heroin, it ranged between EUR 34 and EUR 185 per gram in 2009. Once again, the data is too limited to analyse trends in the retail price of white heroin in the EU.

There have been recent developments in the opium and heroin markets which may impact on future trends. The first development is a significant fall in opium production in Afghanistan. At 3 600 tonnes, opium production in Afghanistan in 2010 is estimated to have fallen to about half the level reached in the previous year. Among the causes suggested for this major reduction in the yield of the opium poppy crop are unfavourable weather conditions and the spread of poppy blight, a fungal infection, which affected opium fields in the major poppy-growing provinces, particularly Helmand and Kandahar. The blight did not significantly change the area under opium cultivation, but had an impact on the quantity of opium produced. The UNODC reports that the decline in crop yield also led to a dramatic rise in reported opium prices at harvest time. The average farm gate price for a kilogram of dry opium increased by a factor of 2.6 — from USD 64 in 2009 to USD 169 in 2010. At the same time, the average price of heroin in Afghanistan increased by 1.4 times.

Yet, it should be noted that the high opium price may not last long. A similar price rise that occurred in 2004, when opium production fell due to disease, lasted less than a year. The effects of the fall in opium production on the consumer markets, particularly in Europe, are hard to predict. Partly, this is due to the lack of reliable information on opium and heroin stored in depots in Afghanistan and along the smuggling routes. In addition, events occurring in Afghanistan in late 2010 might not be felt in Europe immediately. Some police reports suggest that heroin made from Afghan opium could only appear on the European drug markets about 18 months after the crop is harvested.

The second significant development is a reported heroin 'drought' in the United Kingdom and Ireland in late 2010 to early 2011. The availability of heroin is reported to have dropped sharply in both these countries, in part supported by figures from drug seizures in the UK, which showed a considerable drop in heroin purity between the third quarter of 2009 to the third quarter of 2010 (UNODC 2011). However, the extent of the shortage in other European countries is less clear, although reports suggest that Italy and Slovenia have experienced some form of heroin shortages. Other EU Member States, including Germany, France and Nordic countries report little or no reduction in heroin availability. A number of reasons have been put forward to explain the apparent heroin 'drought'. First, it has been suggested that reduced production of opium in Afghanistan, due to the aforementioned poppy blight in the spring of 2010, may be responsible. If this is the case, then the delay between opium harvesting in Afghanistan and the appearance of the resulting heroin on European user markets would be considerably shorter than the police reports mentioned above suggest. A second argument is that law enforcement efforts have disrupted trafficking, in particular through the dismantling of wholesale heroin networks between Turkey and the United Kingdom. Also, 2007 and 2008 have seen record seizures of the heroin precursor acetic anhydride in Europe, and these confiscations may have affected the drug market over a longer period. The diversion of heroin destined for western Europe to the Russian market has been proposed, although Russia also appears to be undergoing a heroin shortage. Finally, other developments in Afghanistan, such as heavy fighting in the south of the country, and law enforcement actions against heroin laboratories and opium stockpiles, may also be influencing heroin supply to Europe.

It is likely that a combination of a number of these factors have played a role in disrupting the supply of heroin to Europe, causing severe shortages in some markets. The extent of this heroin drought and the implications for drug users and services will become clearer with time.

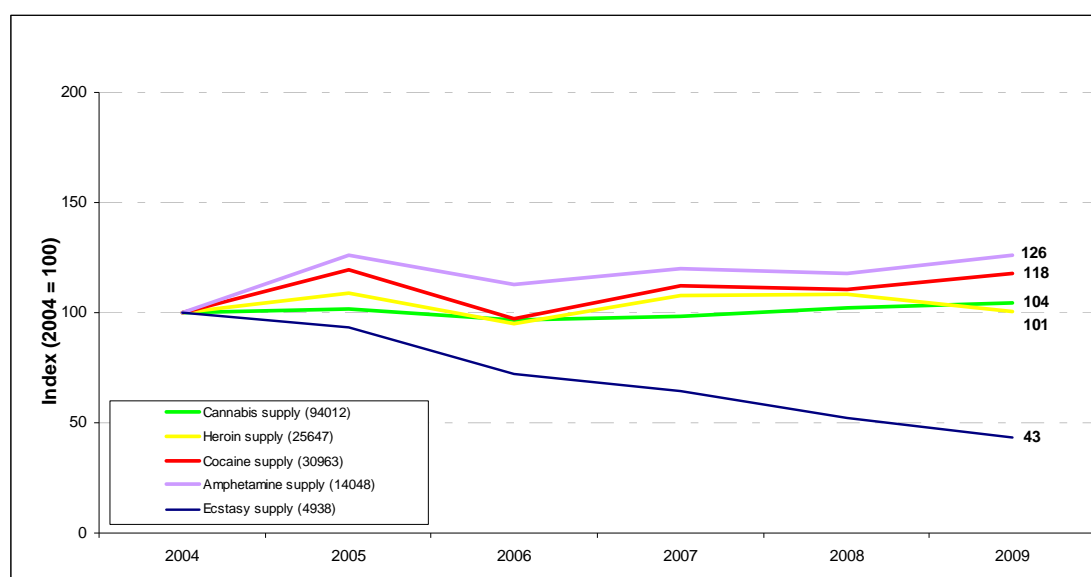
## **Drug law offences**

Drug law offences data usually refer to offences related to drug use (use and possession for use) or drug supply (production, trafficking and dealing), although other types of offences may be reported (e.g. related to drug precursors) in some countries. Data on drug law offences are a direct indicator of law enforcement activity although they are often viewed as indirect indicators of drug use and drug trafficking, although they include only those activities that have come to the attention of law enforcement.

An EU index, based on data provided by 21 Member States, representing 95 % of the population aged 15–64 in the European Union shows that reported offences increased by an estimated 21 % between 2004 and 2009. If all reporting countries are considered, the data reveal upward trends in 17 countries and a stabilisation or an overall decline in nine countries over the period <sup>(17)</sup>.

Offences related to the supply of drugs have remained stable since 2007, although they show an overall increase during the period 2004–09 of about 7 % in the European Union. While offences related to the supply of cannabis and heroin have remained stable for the period, there were small increases for amphetamine and cocaine and a significant decrease in the number of ecstasy-related offences. These trends reflect Europe’s complex market for stimulant drugs and in particular the decreasing ecstasy seizures and reports of reduced levels of ecstasy use in Europe in recent years.

Figure 11: Indexed trends in reports for offences related to drug supply in the EU Member States 2004–09



NB: The trends are based on the available national information on the number of supply reports for drug law offences reported in the EU Member States; all series are indexed to a base of 100 in 2004 and weighted by country population sizes to form an overall EU trend.

Source: Reitox national focal points. Population data: <http://epp.eurostat.ec.europa.eu>

## Trends in new drugs

### Changing names and definitions for new drugs

The 1997 Joint action defined a new synthetic drug as one that had a limited therapeutic value and was not listed under the 1971 United Nations Convention on Psychotropic Substances <sup>(18)</sup> but which posed a comparably serious threat to public health as those substances listed in Schedules I and II to that Convention. The Council decision broadened the scope of, and replaced, the Joint action and defines a new psychoactive substance as a

<sup>(17)</sup> See Figure [DLO-1](#) and Table [DLO-1](#) in the 2011 statistical bulletin.

<sup>(18)</sup> *Convention on Psychotropic Substances, 1971*, United Nations.

'new narcotic or psychotropic drug, in pure form or in preparation, that is not controlled by the 1961 United Nations Single Convention on Narcotic Drugs <sup>(19)</sup> or the 1971 United Nations Convention on Psychotropic Substances, but which may pose a public health threat comparable to that posed by substances listed in the Schedules.

Whilst the Council decision provides a legally binding definition of the substances it covers, there are a number of other terms in common usage in this area and confusion is possible. Historically, new psychoactive substances have been often referred to as 'designer drugs' although today the term 'legal highs' is more commonly used. For practical purposes, a 'designer drug' is probably best thought of as a psychoactive substance produced from chemical precursors in a clandestine laboratory, which has been intentionally designed to mimic the properties of known psychoactive substances and has a limited therapeutic value, and which is not internationally controlled.

'Legal highs', on the other hand, is an umbrella term for unregulated psychoactive compounds or products containing them, specifically designed to mimic the effects of known (established) drugs in order to circumvent existing drug controls. The term encompasses a wide range of synthetic and plant derived substances and products, including 'research chemicals', 'party pills', 'herbal highs', etc., which are usually sold via Internet or in smart/head shops, advertised with aggressive and sophisticated marketing strategies, and in some cases intentionally mislabelled with purported ingredients differing from the actual composition. The 'legal highs' market is distinguished by the speed at which suppliers circumvent drug controls by offering new alternatives to restricted products.

## Trends in new psychoactive substances notified through the EWS

Under the terms of Council Decision 2005/387/JHA (2005–10), 115 new psychoactive substances were notified for the first time through the EWS (Figure 12) with a record number of new substances (41) reported in 2010. This marked increase in the number of new substances notified each year, takes place in the context of the rapid development of the 'legal highs' phenomenon and may reflect both the number of substances available in the EU as well as the improved reporting capacities of the Early-warning system. Many of the newly identified substances have been actively sought after through test-purchases of 'legal highs' products on the Internet and from specialised outlets, such as smart shops and head shops.

Two risk assessments were carried out in this period — BZP (1-benzylpiperazine) in 2007 and mephedrone (4-methylmethcathinone) in 2010 <sup>(20)</sup>. Subsequently, both substances were brought under control at EU level <sup>(21)</sup>. Furthermore, a Joint report was produced on *m*CPP (1-(3-chlorophenyl)piperazine), but the substance was not subjected to risk assessment. However, given the concern caused by *m*CPP, and taking into account the relatively large quantities seized by the Member States, the Commission mandated the EMCDDA and Europol to continue actively monitoring this substance <sup>(22)</sup>.

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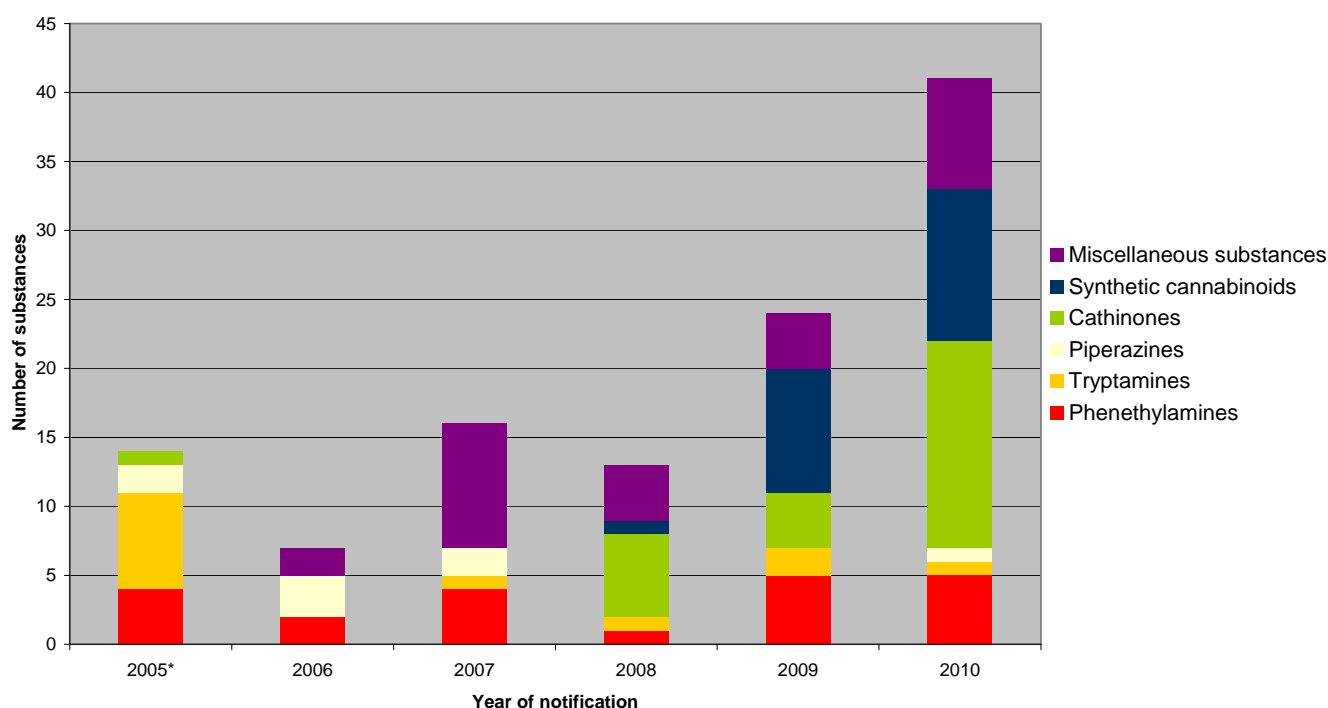
<sup>(19)</sup> *Single Convention on Narcotic Drugs, 1961, as amended by the 1972 Protocol amending the Single Convention on Narcotic Drugs, 1961, United Nations.*

<sup>(20)</sup> [www.emcdda.europa.eu/html.cfm/index16776EN.html](http://www.emcdda.europa.eu/html.cfm/index16776EN.html)

<sup>(21)</sup> [www.emcdda.europa.eu/html.cfm/index16783EN.html](http://www.emcdda.europa.eu/html.cfm/index16783EN.html)

<sup>(22)</sup> [www.emcdda.europa.eu/html.cfm/index132212EN.html](http://www.emcdda.europa.eu/html.cfm/index132212EN.html)

Figure 12: New psychoactive substances notified by year and family 2005–10



NB: Number of new psychoactive substances notified to the European early-warning system under Council Decision 2005/387/JHA.

During **2005**, 14 new psychoactive substances were officially notified for the first time through the information exchange mechanism/EWS set up by the Decision <sup>(23)</sup>. All newly-notified substances belonged to three major chemical groups — phenethylamines, tryptamines and piperazines. Of these 14 substances, three were of particular note, methylone, DPIA and *m*CPP, as exhibiting characteristics that suggested that they were particularly appropriate for targeted monitoring and further vigilance.

In **2006**, seven new psychoactive substances were notified. The chemical make-up of the reported substances was more diverse than in 2005 — some of them belonged to chemical groups never reported before through the EWS, such as indans and benzodifuranyls. Two of the seven reported substances had pronounced hallucinogenic effects, whereas all others exhibited predominantly stimulant effects. Of significance is the fact that of the seven new substances, three belonged to the piperazine family.

During **2007**, 15 new psychoactive substances were notified. The group of notified substances was rather diverse and, beside new synthetic drugs per se, included medicinal products, a metabolite/derivative of a medicinal product and naturally occurring substances. They included phenethylamines, tryptamines and piperazines, as well as substances with a less common chemical make-up. The group was equally divided between substances that had pronounced hallucinogenic effects and those that exhibited predominantly stimulant properties.

<sup>(23)</sup> It should be noted that six of these substances were notified under the terms of 1997 Joint action (period January to May 2005).



During **2008**, 13 new psychoactive substances were notified. This group of notified substances included two plants, but no medicinal products. Altogether, the group consisted predominantly of compounds with stimulant properties, whilst only two substances had pronounced hallucinogenic effects. Notably, during this year fewer new substances were reported than in previous years from the better known chemical groups: phenethylamines (one); tryptamines (two) and piperazines (none). Six of the notified substances belonged to the cathinone derivatives group. Furthermore, from a chemical point of view, it is worth noting one interesting compound — pFBT, a ‘designer drug’ based on cocaine.

In **2009**, 24 new psychoactive substances were notified. All new compounds were synthetic, including two substances with medicinal properties. Nine of the reported substances were synthetic cannabinoids from four distinct chemical groups (naphthoylindoles, phenylacetylindoles, cyclohexylphenols, and dibenzopyrans). Beyond these, there was a mix of substances belonging to more established chemical families — five phenethylamines, two tryptamines and four synthetic cathinones. No new piperazines or psychoactive plants were reported in 2009.

During **2010**, 41 new psychoactive substances were notified. Of those, 15 were synthetic cathinones and 11 were synthetic cannabinoids. Substances belonging to more established chemical families were also reported — five phenethylamines, one tryptamine and one piperazine. The list of newly notified substances was rather diverse and also included a plant-based substance, a synthetic cocaine, a ketamine derivative, a phencyclidine derivative, an indane, a benzofuran, as well as a substance which can be seen as a designer medicine and belongs to a group which can be denominated diphenyl-R-amine.

## Monitoring the Internet

In recent years the Internet has developed as a means of distribution of new psychoactive substances. Since 2006, the EMCDDA has carried out Internet ‘snapshots’ of online sales of such products, often referred to as new drugs or ‘legal highs’. EMCDDA snapshots are assessments of online availability of a particular product, or groups of products, carried out in a short time window, typically in days or weeks. Since 2006 the EMCDDA has undertaken six multilingual snapshots and 13 snapshots in English.

### Trends in online sales of ‘new drugs’

There has been an overall expansion in the online availability of ‘new drugs’ between 2006 and 2011. Substances/products are most often being sold as: herbal highs, research chemicals, plant food, legal high, smoking mixtures, herbal mix, and incense. Also seen are: ‘ethnobotanics, bath salts and botanical products’. There is very little use of the terms ‘smart drugs’ and ‘designer drugs’. This expansion appears to have been accompanied by a considerable diversification in the types of ‘new drugs’ offered. 2010 and 2011 saw the arrival of a range of novel substances such as 6-APB (‘Benzo fury’), 5-IAI, MDAT, methoxetamine, naphyrone (‘NRG-1’) and 4-MEC (‘NRG-2’).

#### *Hallucinogenic mushrooms*

The 2006 English language snapshot identified 39 online shops selling hallucinogenic mushrooms, whilst multilingual snapshots undertaken in 2010 and 2011 identified 64 and 45 shops respectively. Prices have remained largely stable in the monitored period.

#### *GHB/GBL*

The online availability of GHB/GBL between 2007 and 2011 appears to be stable, at a fairly low level. Ten online shops were identified in the 2007 EMCDDA snapshot as selling GBL and /or GHB, whilst nine were found in the 2010 snapshot — four online shops selling GBL and five selling GHB alternatives such as ‘Somatize’ (no sites were identified selling GHB). In 2011, 12 online shops were selling GBL and three sold GHB alternatives. No noticeable price

variations were observed for GBL between 2007 and 2011, whilst GHB alternatives prices decreased from EUR 15–20 for 30 capsules in 2007 to EUR 10–13 in 2011.

#### *'Spice'*

The availability of 'Spice'-like products on the Internet continued to fall in 2011, with 12 of the surveyed online retailers offering the substances, down from 21 shops in 2010 and 55 in 2009. The drop in online availability was accompanied by a decrease in price.

#### *Kratom and Salvia*

Kratom and salvia were the two most frequently offered new drugs in 2011, available in 92 and 72 online shops, respectively. Price information from 2010 and 2011 suggests little change to prices.

#### *Mephedrone*

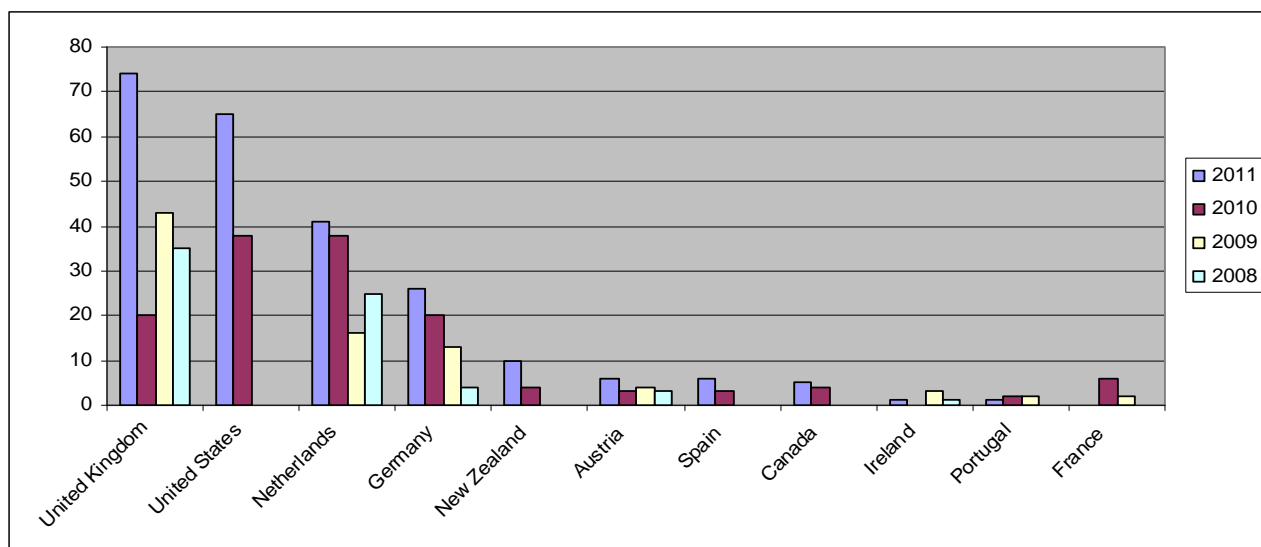
Online sales of mephedrone have been monitored via five snapshots undertaken between December 2009 and February 2011. Results suggest that the ban on mephedrone, introduced by an increasing number of EU countries from the spring of 2010 onwards, led to a price increase and drop in online availability, although the drug still remains available to a limited extent in 2011.

New drugs are often being marketed online as 'opposites' to controlled drugs, that is, as 'legal', 'non-addictive', 'pure', 'safe', etc. It also appears that online vendors have become aware of the risks associated with selling new drugs and have become increasingly cautious. This can be observed, for example in an increase on restrictions on deliveries of products (countries delivered to or amount of product sold), as published by online sellers on their websites. Around 25 % of online shops published restrictions in 2010 increasing to 40 % in 2011. Similarly, there were warnings/disclaimers on around 35 % of the online shops identified in 2010 compared with 75 % of them in 2011.

In addition, an overall a trend of decreasing prices for (non-controlled) 'new drugs' can be observed. There are a number of possible explanations for this, mainly related to increased competition in the market. Firstly, the overall number of types of 'legal high' has increased. Secondly, the number of online shops and hence the supply has also increased considerably. Thirdly, the 2010–11 snapshots identified many apparently US-based shops offering to ship products to the EU, and as the USD–EUR exchange rate has been favourable to the euro in recent years, this may have contributed to a reduction in the prices of goods purchased in euro.

EMCDDA snapshots attempt to ascertain the country of origin of the online shops delivering products to EU Member States. This is rather complex, as parameters such as country code or address can point to different countries. It should be noted that snapshots undertaken in 2008 and 2009 did not include online shops based outside the EU. Figure 13 suggests that many online shops appear to be based in English speaking countries, the United Kingdom and United States in particular. The Netherlands and Germany also appear to be the country of origin for a high proportion of online shops based in Europe.

Figure 13: Apparent country of origin of online shops 2008–11



NB: Only Member States with at least two online shops in both 2010 and 2011 have been included in the figure. In 2011, a search conducted in Romanian for the first time identified 13 online shops based in Romania.

Rather large variations from year to year can be noted within countries, as can an overall trend of increasing numbers of online shops. Shops based outside the EU, most notably the USA but also New Zealand and Canada, constitute around 30 % of the total (95 shops).

### Trends in the new drugs market

In the period of the EU drugs strategy, EMCDDA Internet monitoring has identified an overall expansion in the online availability of ‘new drugs’ between 2006 and 2011. This appears to have been accompanied by an overall a trend of decreasing prices for (non-controlled) ‘new drugs’. The appearance of a large number of new unregulated synthetic compounds marketed on the Internet as ‘legal highs’ or ‘not for human consumption’ and specifically designed to circumvent drug controls shows the speed and sophistication at which the market reacts to control measures, and how globalisation and innovation present a growing challenge to current approaches to monitoring, responding to and controlling the use of new psychoactive substances.

To ‘design’ a drug to replace a controlled substance is not a new concept. In the past, though, designer drugs were illicitly produced and marketed directly on the illicit market (from those based on fentanyl in the 1980s, to ring-substituted phenethylamines in the late 1980’s and tryptamines in 1990s; to piperazines and cathinone derivatives in the early 2000s). An important difference today is the new interaction between the illicit and non-illicit markets, where chemicals are legally sourced but then sold as replacements for illicit psychoactive substances.

One example is ‘Spice’, which was sold as a commodity only available through the Internet, or in specialised shops, rather than through clandestine production and illegal circulation. This approach did not generate seizures or indicate criminality, which might otherwise have attracted the attention of specialised law enforcement agencies. Furthermore, the limited knowledge about the chemistry and effects of the new compounds contributed to the creation of a ‘grey zone’ where the potentially responsible institutions (public health authorities or the competent authorities for medicinal products) did not assume immediate responsibility. This raises the question of what sort of mechanisms are appropriate for monitoring the appearance of products such as ‘Spice’ and accessing their possible impact. It appears likely that if such

developments are to be detected at an early stage, a more proactive strategy may be necessary.

With rapid technological advances, for example, cheap organic synthesis coupled with the increased use of the Internet for marketing and selling new drugs, it may be expected that synthetic analogues of other major drug groups will continue to appear. In the context of the 'legal highs' phenomenon it can be anticipated that the concept of new drugs will continue to evolve at an unprecedented speed. The appearance of synthetic cannabinoids, synthetic cocaine derivatives, ketamine and phencyclidine derivatives mark the latest stages in this development.

In 2009–10, the Early-warning system received reports of substances that were based on slight modifications of the chemical structures of medicines with known abuse potential, suggesting that manufacturers in this area were turning their attention to substances that might appeal to problem drug users. The rise of new designer medicines would be an unwelcome addition to the task of ensuring that prescribed medicines are not diverted and misused. It is also another example of how innovation in the illicit market requires a robust and joined-up response from pharmaceutical and drug control regulatory frameworks.

## Chapter 3: Drug policies

This chapter reviews changes that have occurred during the period 2005–12 in the areas of drug laws; national drug policy documents and their evaluation; and drug-related public expenditure.

### Drug laws

Key changes in drug laws during the period of the EU drugs strategy took place in the fields of defining what a drug was, sanctioning illegal possession for personal use and supply, and defining the thresholds at which the responses may differ.

### New drugs

The practice of circumventing drug legislation by identifying and selling new psychoactive substances not listed in the drug law, has been described in the previous chapter. The speed at which new psychoactive substances can appear and be distributed for profit now challenges the established procedure of passing legislation to control a substance, which can take up to a year or more, in some EU countries.

This has led to considerable changes in speed and scope of drug controls across Europe since 2005. Driven by the 'legal highs' phenomenon, and following alerts of new drugs received by the EU's Early-warning system, new substances are continually being added to national lists. While there were about 400 substances listed as controlled in the EU countries in 2002, this increased to 500 by 2005 and to more than 600 in early 2011. Responses have not been uniform; while the Netherlands and Slovenia have only added those substances required by international obligations (BZP, oripavine, and mushrooms in the Netherlands), others such as the Czech Republic, Denmark, Romania, Sweden and the United Kingdom have added 30 to 50 substances to their list. These numbers exclude the many substances caught by the generic or analogue definitions used in some of those countries. In addition, since 2005, Hungary and Finland have introduced systems of scientific evaluation or risk assessment<sup>(24)</sup>, while changes have taken place in Austria and the United Kingdom [currently in process] to speed up the time taken to control new drugs under the drug laws. At the time of writing (May 2011), the United Kingdom's Police Reform and Social Responsibility Bill under discussion in Parliament provides for temporary banning orders to put a substance under control for one year while risks are assessed. This system is already in operation in Germany and the Netherlands, but the UK proposal is different; while it may lead to a conviction for trafficking, the draft Bill specifically excludes the offence of personal possession.

In their search for control mechanisms that can react more rapidly, countries are increasingly using other laws to control open sale of new psychoactive substances, such as those based on consumer safety laws or medicinal products laws. Within the period of the EU drugs strategy, such control measures were deployed against BZP, Spice and mephedrone, perhaps the three highest-profile new psychoactive substances appearing in the EU since

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<sup>(24)</sup> In Austria, amendments to the Narcotic Substances Act (SMG) which came into force on 1 January 2008 removed the requirement of approval of the Main Committee of the National Council when setting 'threshold quantities' for Narcotic Substances. This shortened considerably the time required to put new substances under control. In Hungary a national committee for scientific risk assessment was established by the Governmental Regulation 1196/2009, and in Finland the amendments to the Narcotics Control Act entering into force in June 2011 [will] allow the government to control new substances after a national evaluation process.

2005. The available data show that eight countries used medicinal products laws and three used consumer safety laws to stop the open sale of these drugs.

Countries are also passing innovative new laws where they feel a need to respond to the new substances faster than their drug laws could allow. In Ireland, in August 2010 a new law prohibited the sale in general of any dangerous or harmful 'psychoactive substance' (medicinal and food products, animal remedies, intoxicating liquor and tobacco are excluded). In Poland, in November 2010 a new law penalised suppliers by prohibiting the manufacture, advertising and introduction of 'substitute drugs' into circulation. The state sanitary inspectors now have the specific right to withdraw from trade a 'substitute drug' for up to 18 months in order to assess its safety, if there is a justified suspicion that it might pose a threat to life or health.

When not adding substances to the drug laws, all these new or alternative solutions have one thing in common; they do not penalise the user, only the supplier. This seems in line with the converging European position, described below, which tends to view the user as in need of help and the supplier as deserving of punishment.

## **Penalties for drug possession and trafficking offences**

During the past 10 years, most European countries have moved towards an approach that distinguishes between the drug trafficker, who is viewed as a criminal, and the drug user, who is seen primarily as a sick person in need of treatment. The 1988 UN Convention Against Illicit Traffic, Article 3(2), requires each state to establish possession of drugs for personal use as a criminal offence, subject to its constitutional principles and the basic concepts of its legal system. As a result, Article 3(2) has been implemented in different ways in Europe, with possession of any illicit drug being criminal in most countries, whereas in others, non-criminal sanctions apply to some drugs or to all drugs. This is most visible through the lens of changing maximum penalties for drug possession and trafficking offences in the different countries.

Three broad types of penalty changes can be identified during the period of the EU drugs strategy: those changing the legal status of the offence (criminal or non-criminal); those changing categories of drugs, when the category determines the penalty; and those simply changing the size of the maximum penalty available. Most of the countries that have altered their penalties for (personal) possession have used a combination of these types of change.

Changing the legal status of the offence is perhaps the most significant step for legislators. In Slovenia, the Misdemeanours Act from January 2005 removed prison penalties for all misdemeanours, one of which is possession of drugs for personal use. Other countries made changes to the way different drugs are categorised, with the category determining the penalty. In the Czech Republic in 2010, categories of drugs were introduced (cannabis or other drugs) that attracted different penalties for personal use offences. Conversely, at the end of 2006, Italy removed the sentencing distinctions between illicit drugs, while increasing the maximum duration of administrative sanctions, e.g. driving licence withdrawal of up to one year for any illicit drug. In the United Kingdom, cannabis had been reclassified from Class B to Class C, in 2004, lowering maximum penalties for possession offences, but in January 2009, this was reversed. However, revised national police guidelines continued to advise an informal warning for a first offence. Finally, penalties for personal possession for all drugs were changed in Bulgaria, where specific offences of personal possession were introduced with lower penalties in 2006; in Denmark, where a fine replaced warnings in 2007, and in France, where the innovative 'drug awareness course' was added to the list of options for judges in the same year, to be aimed at occasional users. The Slovak Criminal Code was changed from 2006, to widen the definition of 'possession for personal use' from one to three doses of any illicit substance while leaving the maximum punishment unchanged. The change also introduced a new offence of 'possession of a larger amount for personal use', defined as up to ten doses, punishable by up to five years in prison.

In terms of an overall European trend in penalties for personal possession of drugs, it could be said that penalties were reduced in the first half of the decade, but increased in the second half. Yet, while motives for change are complex and vary according to country, the above data show signs of a drift towards convergence in Europe. No country introduced criminal penalties or increased prison sentences for personal possession offences, either during the period of the EU drugs strategy, or in the five preceding years.

On the other hand, EU Member States have indicated collectively that drug trafficking offences should be punished more severely, even if the offences themselves are defined differently in the laws of almost all EU countries. 'Trafficking' offences may include production or cultivation, import and export, transporting, offering, selling and/or possession, with intent to distribute or supply, or the concept of acting 'for gain' or 'on a commercial basis'. The basis for this was the Council Framework Decision 2004/757/JHA of October 2004, which set out minimum provisions of criminal acts and penalties for trafficking. During the period of the EU drugs strategy, this has influenced subsequent increases in the maximum penalty for basic supply offences in Austria, and penalties for trafficking large amounts in the Netherlands and Poland, whilst Slovakia raised penalties for both. Nevertheless, there has also been recognition of disproportionate sentencing: in 2006, Malta found that the minimum six-month sentence for suppliers was not always appropriate in situations of sharing, and changed the law to permit exceptions.

## Quantity thresholds

The main determinant of seriousness of a drug offence across the EU is intention of the offender rather than quantity of drugs. As use penalties decrease but trafficking penalties increase, there are calls to clarify the distinction between the two offences. Those two broad categories, and the proportional sub-divisions within them, are frequently determined by threshold quantities, and this continues to be a live topic in the period of the EU drugs strategy, with countries choosing to amend, introduce or abandon threshold quantity schemes.

Changes have taken place that determine: the offence, i.e. possession or supply (revisions by Slovakia and the United Kingdom in 2005; Italy in 2006); whether an aggravated supply offence should be charged (Austria in 2008; Germany in 2008 and 2009 for different substances); whether the matter should be dealt with by administrative sanctions or forwarded to the criminal courts, as in the Czech Republic in 2010. The mechanics of defining a threshold have also varied during the period. For example, in 2006 in Italy the cannabis threshold quantity was set by way of THC level, while the cocaine quantity was set for whole mass seized. Some Member States refer to the number of 'doses' and a few Member States use street value to set a threshold quantity. It is also possible, as in Slovakia in 2005, to take a combination approach to the calculation, so lower quantities are defined by doses but higher levels are defined by street value. However these proposals for change have not always been implemented. In 2005, a UK enquiry into establishing threshold quantities to better define personal use and supply offences concluded that there were difficulties in establishing prescribed amounts which are universally applicable and appropriate, and the idea was discontinued.

Currently there is no agreement in the EU on an ideal system for the setting of quantity thresholds. In most countries, the aims of established thresholds are rarely stated, making it impossible to evaluate their success. Legal systems, police operations and prevalence and patterns of drug use vary greatly between countries as do resources and the integrity of the institutions and officials overseeing and enforcing the schemes. At present, no exemplary model appears to be possible, and developments in this area are likely to continue.

## National drug strategies and action plans

In the year prior to the new EU drugs strategy (2004), 24 out of the current 27 EU Member States had a national drug policy document <sup>(25)</sup>. This number increased to 26 in 2008 when Italy and Malta adopted such documents, leaving Austria as the only country without a national strategy or action plan on drugs (although such plans exist in all nine provinces of that country).

During the period 2005 to 2010, at least one new drug policy document entered into force in all but four countries. The exceptions are Belgium, where a 2001 policy document is still in force; Germany, where a replacement of the 2003 action plan by a national drug strategy is foreseen for 2011; the Netherlands, where a replacement of the 1995 white paper on drugs was not finalised in 2010; and Austria.

In total, around 45 new national drug strategies and action plans have entered into force in the European Union during the period 2005–10 <sup>(26)</sup>. This number is slightly higher than for the preceding six-year period which saw about 35 national drug policy documents adopted.

This high number of implemented drug policy documents reflects the demanding policy planning agenda that has been adopted by many EU Member States. In most cases, drug policy documents have to be evaluated, re-drafted, submitted to consultation and adopted by government every four years or less. This has led to both difficulties and delays in the renewal of drug policy documents in several countries. Such delays, which have ranged between 6–18 months, have been reported in recent years by Germany, Italy, Latvia, Lithuania, Portugal, Romania and Slovenia.

Changes in government have been another cause of delay in the adoption or renewal of new drug policy documents. Recent examples — all from 2010 — include Hungary, where the newly elected government stated its intention to replace a strategy adopted in 2009; the Netherlands, where a project to adopt a new drug policy document was modified and postponed following a change in government; and Ireland where new elections led to the postponement of the development of a combined alcohol and drugs strategy.

The level of detail used in national drug plans in Europe continues to increase. In action plans it has now become common for each envisaged action to be linked with an indicator to monitor its implementation or outcome, a deadline, as well as naming the party responsible. In addition, the number of planned actions is often large, with several countries, such as France or Portugal, incorporating around two hundred or more actions in their drug plans.

It is difficult to assess if there have been major changes in the content of the national strategies and action plans. This is due both to the nature of these documents (a long set of actions and objectives with often no mention of priority and resources) and to the lack of availability of translations. One common feature, however, is the comprehensive nature of the drug policy documents: EU Member States generally cover all, or almost all, areas of drug policy and set individual objectives for each of these areas.

The extension of illicit drug policies towards licit drugs, has been observed in a very limited number of cases over the period 2005–11. Examples of this are the new drug strategy of Luxembourg which also considers alcohol, tobacco, medicines and addictive behaviours, but that will nevertheless have separate action plans, and the planned extension of the Irish drug

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<sup>(25)</sup> The term 'national drug policy document' means any official document approved by the government that defines general principles and specific interventions or objectives in the field of drugs, where officially presented as a drug strategy, action plan, programme or other policy document.

<sup>(26)</sup> Two additional policy documents have been adopted in early 2011.



policy to include alcohol. The vast majority of national drug policy documents in Europe remain focused on illicit drugs.

The current European context of stable or reducing drug-related problems (injecting drug use, HIV infections, drug use prevalence levels), increasing problems with public finances, and changes in governments in several countries, may result in drug policy changes in the coming years. One recent example from the United Kingdom saw the inclusion of recovery as a new policy focus in two recently adopted drug policy documents.

## Policy evaluation

One of the key changes over the period of the EU drugs strategy is the development of evaluation as an integral part of national drug strategies and action plans. During the period 2000–04, only two evaluations of national drug strategies or action plans were reported. This increased to 23 reported evaluations in the 2005–10 period, and for the first time, a majority of EU Member States have evaluated their most recent drug policy document.

Evaluation approaches used can differ widely between countries <sup>(27)</sup>. Most evaluations are internal, performed by the national drug coordination body or one of the ministries. There are also, however, external evaluations that are performed by a national research centre or, in the cases of two smaller countries (Cyprus and Luxembourg), by a research centre from another country. In general, those evaluations undertaken by external parties tend to be more structured and comprehensive.

In terms of drug policy evaluation methods, very few theoretical models have been developed and most existing evaluations are based on data collection that covers an inventory or assessment of the implementation of the actions alongside a review of available epidemiological and law enforcement data. Stakeholders' views are sometimes obtained via consultation or survey. In general, it can be observed that countries are often stronger in their capacity to audit the level of implementation of their strategies or action plans than in the evaluation of their outcomes and impact. One reason for this is the extreme complexity of some of the policy documents and the difficulty involved in linking the individual outputs of a large number of actions with the overall drug situation. An additional shortcoming is that few countries compare their drug situation, and drug trends, with those of other European countries. As a result, several evaluations have recently concluded on the success of a policy because of, for example, a decline or stabilisation in cannabis use, without considering that this trend has been observed in many countries, and may be unrelated to their policy.

## Public expenditure

The field of drug-related public expenditure is characterised by poor and largely incomparable data, and EU countries that have estimates, have in many cases use different definitions and methodologies. Nevertheless, a relatively sharp increase in activity in this area can be observed, with more than 20 countries attempting to report public expenditure during the last decade. The reports in many cases cover only some areas of expenditure and the frequency of reporting has been variable. In addition, changes over time of the methods used by countries make temporal comparisons of estimates very limited, even within the same country.

As a consequence, it is not possible to report on Europe-wide drug-related public expenditure and on trends in this area. Some cautious general observations can however be made on the basis of data from 12 countries that have attempted to arrive at comprehensive estimates of drug-related expenditure during the last decade. These countries reported public expenditure

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<sup>(27)</sup> These findings are based on presentations made during a Reitox academy organised by the EMCDDA in July 2010.

on the drug problem ranging from 0.02 % of GDP to 0.48 % of GDP. As seen in other areas of social policy, as countries become wealthier, the proportion of GDP spent by government on activities related to drugs appears to increase (OECD, 2006; Prieto, 2010). In Belgium, the Czech Republic, Germany, Luxembourg, the Netherlands, Sweden and the United Kingdom, at least 0.1 % of GDP was devoted to drug-related problems; in France, Latvia (labelled expenditure only), Hungary and Slovakia, it accounted for between 0.1 % and 0.04 % of GDP. Taking into account that different methods were used and that the degree of completeness varies, these values do not differ greatly from estimations for the US (0.42 %) (Reuter, 2006) and Australia (0.41 % of GDP) (Moore, 2008).

Public expenditure studies also attempt to estimate the allocation of funds for different types of drug-related issues. However, caution is required in making comparisons between countries, as they may not apply the same classification of expenditure. Among the 12 countries presenting complete estimations of drug-related public expenditure, supply reduction activities — ‘law enforcement’ or ‘public order and safety’ — accounted for between 48 % and 92 % of the total. Expenditure for justice, police, customs and prisons were the items most frequently reported.

The way countries categorise demand reduction expenditure varies markedly in Europe. Expenditure on treatment or health accounts for about 40 % or more of the total reported for Belgium, France and Luxembourg. Spending on harm reduction was identified by five countries, ranging from 0.1 % to 28.8 % of estimated drug-related expenditure. Seven countries provided data on expenditure related to prevention, with estimates ranging from 1 % to 12 % of the total expenditure on drugs issues. Finally, some countries reported expenditure on social protection and reintegration.

A number of European countries are already using data on public expenditure as a tool for planning and evaluating the implementation of drug policies, while others, such as Portugal and Slovakia, report plans to do so. Developing a clear and complete picture of national drug-related public expenditure in Europe, however, remains a challenge. Currently, there is no consensus on how to estimate specific types of drug-related expenditure. In order to improve accuracy and comparability across countries, a comprehensive mapping of the public bodies funding drug policy will be necessary, as well as the harmonisation of concepts and definitions.

Governments are free to allocate funds to drug policy, but they are constrained by the financial capacity and by the overall priorities of the country. Additionally, budgetary execution depends not only on planned activity, but also on the dimension of the problem. For instance, treatment expenditure may increase if the number of drug clients looking for treatment rise or if prices of medicines go up. Therefore, expenditure depends upon variables which are not fully under the control of governments.

Currently, Europe is facing the consequences of the world economic recession that started in 2008. Taking into account that in the past, the amount and the share of drug-related public expenditure has been closely associated with economic growth, it is likely that general public austerity will have an impact. Complete estimations of cuts are not available, however several countries have already reported that austerity is affecting drug-related expenditure. The areas most frequently mentioned as being subject to cuts are general coordination, research and prevention. Treatment has also been affected but governments may have tried to preserve this area as much as possible.

## Chapter 4: Demand reduction

This chapter reviews changes that have occurred since 2004 in the areas of prevention, treatment, harm reduction, social reintegration and prison health services.

### Prevention

Drug prevention can be classified according to levels or strategies, ranging from targeting society as a whole (environmental prevention) to focusing on at-risk individuals (indicated prevention). The majority of prevention activities mentioned in this chapter focus on substance use in general, and do not differentiate between alcohol, tobacco and illicit drugs.

Data on the provision of prevention are available from expert ratings for 2004, 2007 and 2010. They provide information on the geographical availability of interventions assessed at five levels from 'no provision' to 'full provision'. For full information on the monitoring data and sources used see the prevention profiles at [www.emcdda.europa.eu/prevention-profiles](http://www.emcdda.europa.eu/prevention-profiles).

### Environmental prevention

Environmental prevention strategies aim at altering the immediate cultural, social, physical and economic environments in which people make their choices about drug use. These strategies typically focus on norms and include measures such as smoking bans and alcohol pricing but also improvement of the social climate in schools and communities.

Since the introduction of the Irish smoking ban in 2004, following the signature by the EU of the WHO tobacco framework convention in 2003, legal measures targeting tobacco advertising and smoking environments have gained momentum. In 2010, almost all European countries had some form of tobacco ban in place.

Measures in the alcohol area have been more limited. While the 2006 EU alcohol strategy required several environmental measures to be implemented, a 2009 implementation study reported that persuasive approaches (e.g. campaigns) were more common than environmental strategies such as regulation or taxation. There is however, a trend towards countries adopting a higher age limit (18 years) for selling and serving alcohol (European Commission, 2009).

The use of environmental prevention strategies in schools expanded during the assessment period. Total smoking bans in schools were reported in 26 Member States in 2010, an increase from 18 in 2004. Reports that drug policies<sup>(28)</sup> were available in almost all schools, increased from eight Member States in 2004 to 13 in 2010. In both cases the increases occurred mainly between 2007 and 2010. The provision of environmental strategies at community level was also reported to have increased since 2004. Community prevention plans were provided in most locations in 19 Member States in 2010 compared to 12 in 2004, while cooperative prevention work between community agencies was undertaken in most relevant locations in 19 Member States compared to seven in 2004.

Since the end of the 1990s, guidelines for improving recreational settings have been developed as an environmental prevention tool to reduce risk of drug- and alcohol-related problems. They cover topics such as the accessibility of free cold water, rules on glassware, noise and staff training. While in 2009, 12 countries reported having developed such guidelines for nightlife venues (up from three in 2004), only the Netherlands, Slovenia,

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<sup>(28)</sup> A school drug policy establishes the norms and regulations about substance use in the school setting and how to proceed when rules are broken.

Sweden and the United Kingdom enforced and monitored them. Free cold water was available in the majority of nightclubs in only 11 EU countries.

## Universal prevention

Universal prevention addresses entire populations, predominantly at school and community level. It aims to deter or delay the onset of drug use and drug-related problems by providing young people with the necessary competences to avoid or delay initiation into substance use. In general, universal prevention is the most common type of prevention strategy but in most cases interventions are not or only poorly evaluated.

There have been few significant changes since 2004 in school-based universal prevention. Interventions with little evidence of effectiveness have continued to be widely provided during the period. This includes information days about drugs (which were reported as being fully or extensively provided in 11–13 Member States depending on the year), visits of police officers to schools (8–10 Member States), other external visitors such as experts or ex-drug addicts lecturing in schools (9–10 Member States) and information provision (without skills training) about the risk of drugs (11–12 Member States). Some increases were observed for interventions with uncertain levels of effectiveness, such as ‘creative extracurricular activities’ (from 10 to 16 Member States reporting full or extensive provision) and peer-to-peer interventions (from three to five Member States).

Interventions with a stronger evidence base increased only very marginally or decreased. Full or extensive provision of manual-based multi-session programmes increased from five Member States in 2004 to seven in 2010. Differently, the reported provision of other (non-manualised) personal and social skills training programmes decreased from 15 to nine Member States.

In family based universal prevention, the use of interventions such as family meetings, which are not supported by scientific evidence, decreased from full or extensive provision reported in 11 countries in 2004 to nine in 2010, whereas the use of more promising approaches such as family training programmes slightly increased from four to six Member States.

## Selective prevention

Selective prevention intervenes with specific groups, families or communities who may be more likely to develop drug use or progress into dependency. Data based on expert ratings is available on the provision of interventions for, and policy importance of, nine vulnerable groups as well as for vulnerable families. Overall, in 2010, Member States’ drug policies were reported to more frequently mention most vulnerable groups as targets, compared with 2004. In terms of implementation, full or extensive provision of interventions only increased for pupils with social or academic problems, immigrants and for homeless youth, while it decreased for youth in disadvantaged neighbourhoods. There are almost no data on the content of these interventions and some indication that drug information and counselling approaches might be frequent, while interventions that focus on more promising approaches (e.g. coping, skills) are less frequent. Provision (extensive or full) for families with substance use problems and for socially disadvantaged families was reported to have increased between 2004 and 2010.

## Indicated prevention

Indicated prevention aims to identify individuals with behavioural or psychological problems that may be predictive for developing problem substance use later in life. They are targeted individually with special interventions. In the EU, early intervention is understood as a specific type of indicated prevention, which only considers level of drug use as predictor for developing problem substance use and aims to intervene early within a drug use career.

In 2004, only two Member States reported on measures for children with behavioural disorders. In 2010, 14 Member States reported on the provision of indicated prevention but the majority of reported interventions focused on early intervention and counselling for drug users, and very few were for early onset behavioural problems. In addition, only a limited number of countries report that structured and manual-based interventions are used; most of these in school settings. Overall, the full or extensive provision of early identification initiatives for school pupils with behavioural or drug-related problems, rose from five Member States in 2004 to 11 Member States in 2010.

## Other developments

Since 2004, several programmes developed in North America have been implemented in Europe, for instance the Good Behaviour Game (universal school-based prevention), the Strengthening Families Programme (selective family-based prevention), Preventure (indicated prevention) and Communities That Care (environmental prevention and universal prevention). There is evidence that they are also effective in the European context, with some adaptations in their implementation.

A number of positively evaluated programmes have been transferred between EU countries and also with neighbouring countries: FRED, a manualised multi-session intervention for young drug law offenders has been implemented with EU funding in an additional 15 Member States, following promising results from the evaluation of the German prototype. Also funded by the EU is EUDAP, the first multi-country cluster-randomised controlled prevention trial in Europe, running between 2004 and 2007. The Unplugged programme implemented through a trial in seven Member States demonstrated positive results for reducing drunkenness and cannabis use. This programme has since been implemented in five additional Member States and in EU neighbouring countries.

## Treatment

Psychosocial interventions, opioid substitution and detoxification are the main modalities used for the treatment of drug problems in Europe. The relative importance of the different treatment modalities in each country is influenced by several factors, including the organisation of the national health care system. Drug treatment services may be provided in a variety of settings: specialised treatment units, including outpatient and inpatient centres, mental health clinics and hospitals, units in prison, low-threshold agencies and office-based general practitioners.

Availability and access to drug treatment has generally increased in recent years. In 2009 at least one million drug treatments are estimated to have been delivered in the EU, about two thirds of these being related to opioid users in substitution treatment. A substantial number of clients received other forms of treatment for problems related to opioids, stimulants, cannabis and other illicit drugs.

### Opioid substitution treatment

Opioid substitution treatment was already available in 26 Member States in 2005 and Cyprus was the last country to provide this form of treatment when it introduced buprenorphine in 2007. Overall, the number of opioid substitution clients in the European Union is estimated to have increased by about 25 %, from around 550 000 clients in 2005 to an estimated 685 000 in 2009.

Methadone is the most common substance used in opioid substitution treatment, representing between 70 % and 75 % of all such treatments (down from 80 % in 2004) and it is available in all countries except Cyprus. In the course of the current EU drugs strategy, five countries introduced buprenorphine maintenance and 12 Member States added buprenorphine-

naloxone combination tablets to the range of substitution medications available at national level. Thus, buprenorphine-based medications are now universally available in the EU, compared to 2005 when the medication was only available in 17 countries. Since 2004, Bulgaria, Luxembourg, Slovenia and Slovakia introduced slow-release morphine as a further option, and supervised heroin-assisted treatment became available in 2010 in Denmark, and as a trial in Belgium, bringing the number of EU countries where this treatment is possible to six.

In the 15 countries that were already members of the EU in 1995, the number of clients in opioid substitution treatment is estimated at nearly 667 000 clients, while in the 12 countries that joined the EU since 2004, the number of substitution clients almost doubled between 2005 and 2009, from 10 000 to 18 000. Despite this increase, their share reaches less than 3 % of the total number of clients in opioid substitution treatment in the EU <sup>(29)</sup>.

Over the 2005–09 period, all Member States except Spain, the Netherlands and Romania reported an increase in the number of clients in substitution treatment (see Figure 14). The rate of increase was highest in Bulgaria (+250 %), followed by Finland, Latvia, Estonia, Poland, Lithuania and Austria where the number of clients doubled, although in some of these countries, the increase was from a very low baseline. The smallest increases were reported by Italy and Luxembourg (+10 %).

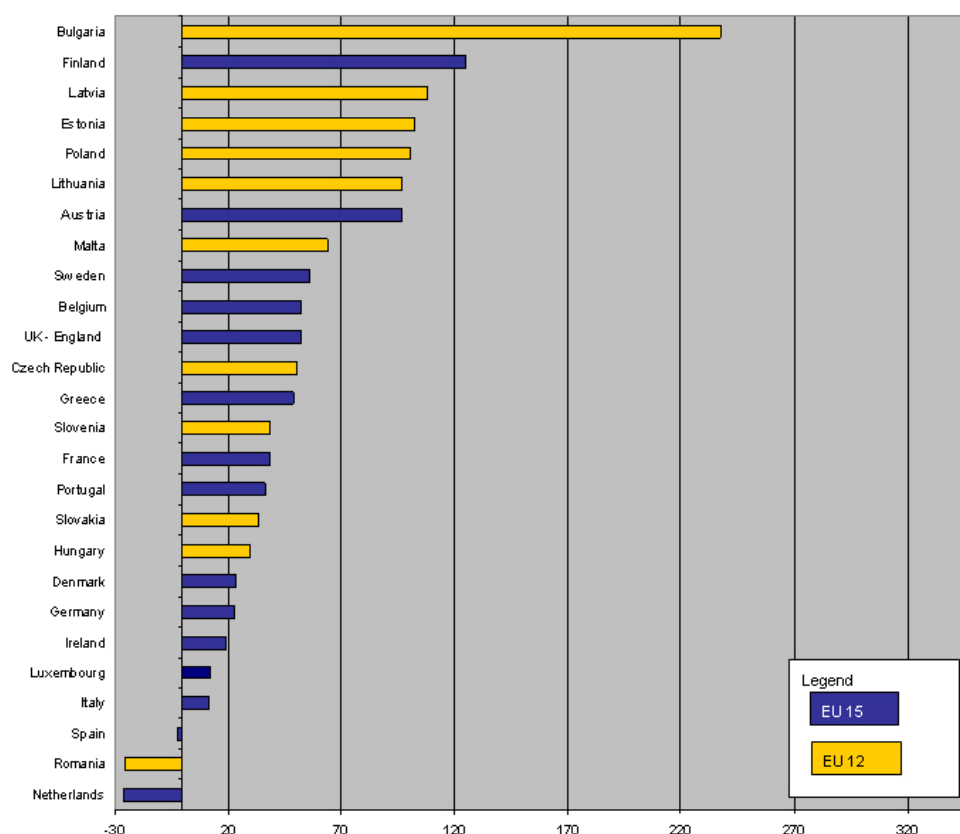
Estimates of numbers of problem opioid users in the EU have been refined during the period under scrutiny from 1.5 to 1.3 million. Based on the latter figure for 2009, it can be estimated that the coverage of opioid substitution treatment has increased from about 40 % in 2004 to about 50 % in 2009. However, the difficulties in calculating the number of problem drug users combined with the fact that PDU estimates are sometimes based on treatment data sources mean that such calculations should be interpreted with some caution.

For 2009, national coverage rates can be calculated for 16 countries. The highest opioid substitution coverage (over 40 %) can be found among those countries with 'older' heroin epidemics, while most countries that joined the EU in 2004 and 2007 are characterised by coverage rates that are below 30 %. Problems in access to opioid substitution treatment have been documented for Hungary and Romania with waiting times that range between one and six months, and for Bulgaria, Greece and Poland where this period extends to over one year.

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<sup>(29)</sup> The 12 Member States that have joined the EU in 2004 and 2007 represent about 20 % of the total population of the EU.

Figure 14: Change (%) in the number of clients in opioid substitution treatment between 2005 and 2009 in 27 EU Member States



Source: Table HSR 3 (part i) in the statistical bulletin 2011.

Overall, it is estimated that about half of the European Union’s problem opioid users have access to substitution treatment — a level that is comparable to those reported for Australia and the United States though higher than that reported for Canada. China reports much lower levels, while Russia, despite having the highest estimated number of problem opioid users, has not introduced this type of treatment (see Table 1).

**Table 1: International comparison of estimates of problem opioid users and numbers of clients in opioid substitution treatment**

	Problem opioid users	Clients in opioid substitution treatment
European Union	1 300 000	685 000
Australia	90 000	43 000
Canada	80 000	22 000
China	2 500 000	242 000
Russia	1 600 000	0
USA	1 200 000	660 000

NB: Year: 2009, except for Canada (reference year is 2003). All numbers are approximate.

Sources: Arfken et al. (2010), Chalmers et al. (2009), Popova et al. (2006), UNODC (2010wdr); Yin et al. (2010).

## Treatment for cannabis and stimulant users

Data on availability of treatment other than OST cover only the first half of the current EU drugs strategy (from end of 2004 until 2008). Data on developments during the 2<sup>nd</sup> Action plan will only become available late 2011.

Specific treatment programmes for cannabis users have been reported by 13 countries both in 2004 and in 2008<sup>(30)</sup>. However, while the availability and accessibility of these programmes were reported to be generally low in 2004, national experts estimated in 2008 that nearly all those seeking specific cannabis treatment would obtain it in Greece, France and Slovenia; more than half of them in Germany and the United Kingdom; and only a minority in the remaining eight countries. Since 2004, a large number of cannabis-related research studies have been published, raising the awareness around cannabis use-related problems. As a consequence, several governments have launched new treatment programmes. In France and Germany, for example, more than 500 counselling facilities targeting cannabis users have been set up during the timeframe of the EU drugs strategy. Internet-based cannabis treatment has also been developed in order to facilitate treatment access to users who are reluctant to seek help within the specialist drug treatment system.

The provision of specialised treatment programmes for cocaine and crack cocaine users was reported by seven Member States in 2004 and by 11 in 2008. While national experts from Italy, Portugal, Slovenia and the United Kingdom estimated that these programmes were available to a majority of cocaine users in need of treatment, experts from Denmark, Germany, Ireland, Spain, France, the Netherlands and Austria estimated that they were available only to a minority of them.

Specialised programmes for amphetamine users were reported from three Member States in 2004 and had become available in nine countries in 2008. As with cocaine, not all countries have significant amphetamine user populations and therefore have less need for dedicated programmes. In some countries in northern and central Europe (e.g. Sweden, the Czech Republic) with a long history of treatment for amphetamine users, treatment services are generally tailored towards their specific needs. In countries where significant problem amphetamine use is more recent (e.g. Estonia, Slovakia), treatment systems are still primarily geared towards problem opioid users and have been slower to address the needs of amphetamine users. Overall, the availability of specialised stimulant treatment is still relatively low in most Member States.

## Harm reduction

In the past two decades, Europe has seen the growth and strengthening of harm reduction, and its integration within a range of other health care and social services. From an initial focus in the late 1980s on the HIV/AIDS epidemic, harm reduction has expanded into the broader perspective of catering for the health and social needs of problem drug users, especially those who are socially excluded. During the period of the current EU drugs strategy, harm reduction policies and interventions in Europe have been further consolidated. Clear differences still exist between countries in the choice of what might be regarded as second line and highly targeted interventions (e.g. heroin-assisted treatment, drug consumption rooms, prison needle exchange) and no overall consensus currently exists between all Member States on either the appropriateness of these kinds of approach or what part they should play, if any, within a national demand reduction strategy. Considerably more agreement can now be found in national policies on the importance of what might be

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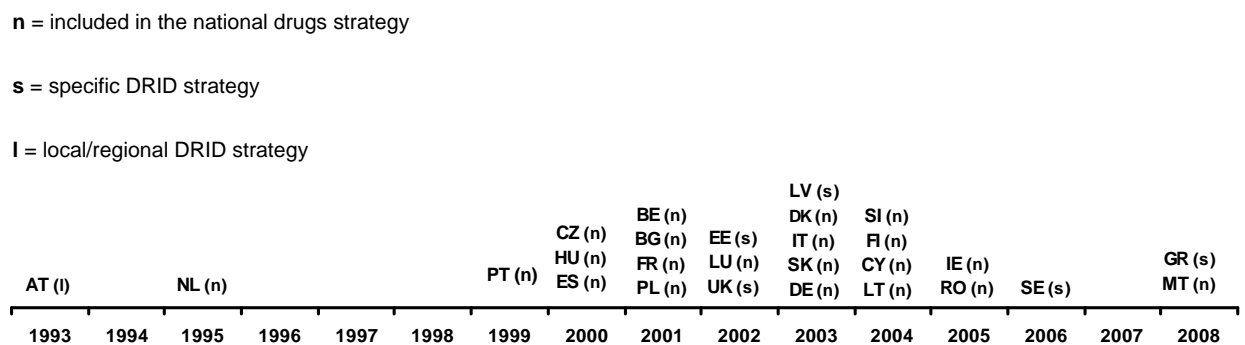
<sup>(30)</sup> The EMCDDA has planned a new data collection exercise in 2011 with results available in early 2012. The timing of this data collection was chosen in order to be able to provide data for the evaluation of the EU strategy. The decision to undertake the evaluation one year earlier than initially foreseen has resulted in a lack of recent data in some areas.



considered core harm reduction approaches, such as substitution treatment, or the provision of sterile injecting equipment. These approaches are no longer regarded as controversial and programmes now exist in all EU countries in these areas, even if levels of implementation and coverage still vary greatly.

In 2004, 21 countries mentioned the prevention of drug-related infectious diseases as a strategic objective at national or regional/local levels. Five more countries joined them between 2005 and 2008 (Figure 15). Whilst in the majority of countries, these objectives are part of the national drug strategy, four countries have dedicated strategies (Estonia, Latvia, Sweden and the United Kingdom).

Figure 15: Year of introduction of strategic objectives to prevent drug-related infectious diseases in 27 EU Member States



Source: Structured questionnaire on 'Prevention and reduction of health-related harm associated with drug use' (SQ 23/29), submitted by NFPs in 2005 and 2008.

The number of EU Member States that mentioned the reduction of drug-related deaths as a strategic objective increased from 11 to 16 since the introduction of the EU strategy. Nevertheless, 10 countries still report no strategic objectives in this area. In most countries, strategic objectives regarding drug-related deaths are part of the national drug strategy, but in the United Kingdom a dedicated strategy exists.

In 2008, a report on the implementation of the Council Recommendation of 18 June 2003 confirmed that harm reduction policies were part of public health responses to prevent and reduce health-related harm associated with drug dependence across the EU.

## Reduction of drug-related infectious diseases

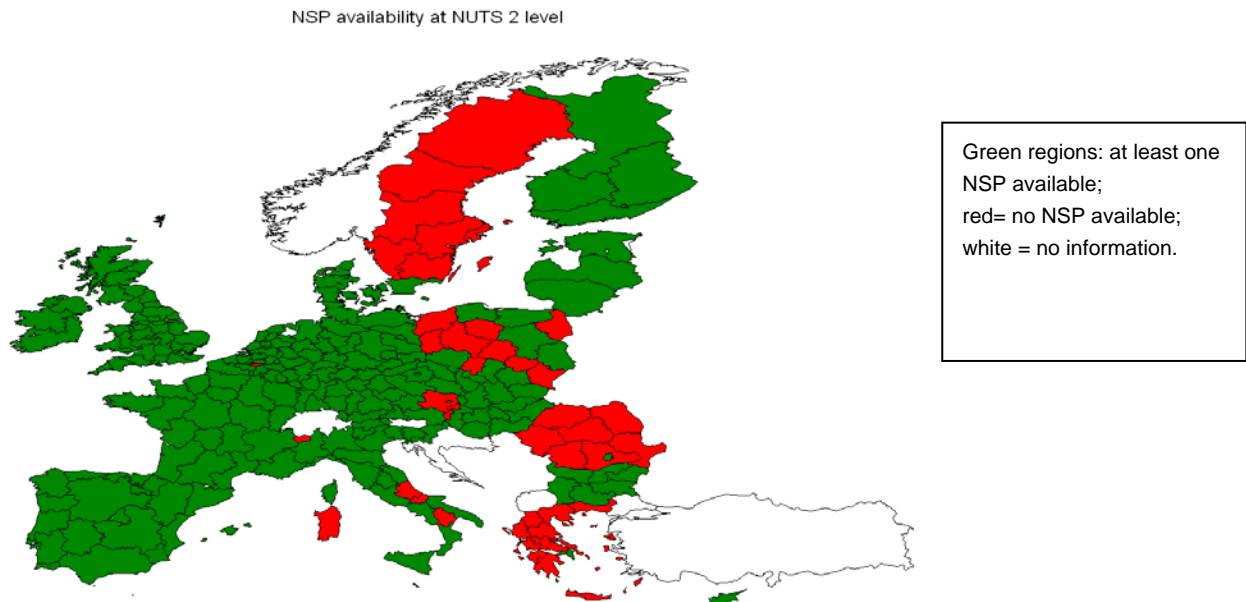
Countries respond to the spread of infectious diseases among drug users with a range of interventions, including: drug treatment, particularly opioid substitution treatment; distribution of sterile injection equipment and other paraphernalia; community-based outreach and information activities, health promotion and safer-use education; infectious disease testing and counselling; antiretroviral treatment; and vaccination against viral hepatitis. Differences exist between countries regarding the volume and combination of these services, however in recent years several countries have given increasing priority to identification, counselling, testing and treatment of infections and to vaccination.

## Needle and syringe programmes

Programmes for the exchange or distribution of needles and syringes and other injecting equipment (NSPs) were first introduced in Europe in the mid-1980s, and were established in all but one Member State in the course of the 1990s and early 2000s. Cyprus was the last EU

Member State to establish NSPs in 2007. The current geographical provision of NSPs is illustrated in Figure 16, which is based on expert reports. It shows that there are still regions without such interventions in some EU countries.

Figure 16: Needle and syringe programmes, geographical coverage at regional level

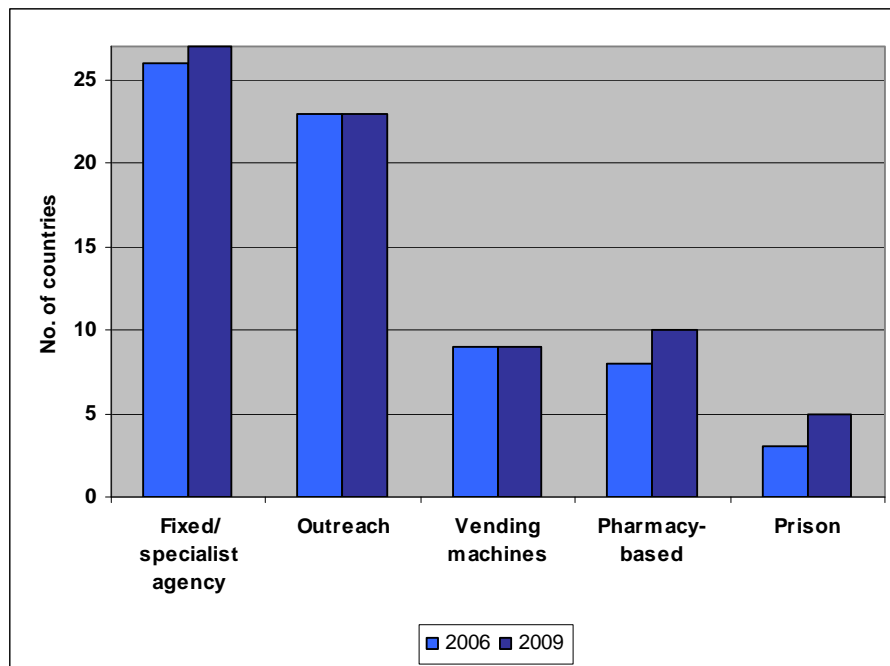


NB: The green areas represent regions where at least one needle and syringe programme site is located; the red areas are regions where no needle and syringe programme is located; and the white areas are NUTS-2 regions for which no information was available. The Acronym NUTS stands for **Nomenclature of territorial units for statistics**, following the European classification of territorial units for statistics defined in the Regulation (EC) No 1059/2003 of 26 May 2003. The current NUTS classification lists 97 regions at NUTS 1, 271 regions at NUTS 2 and 1303 regions at NUTS 3 level. Further information can be found at: [http://epp.eurostat.ec.europa.eu/portal/page/portal/nuts\\_nomenclature/correspondence\\_tables/national\\_structures\\_eu](http://epp.eurostat.ec.europa.eu/portal/page/portal/nuts_nomenclature/correspondence_tables/national_structures_eu) [http://epp.eurostat.ec.europa.eu/portal/page/portal/nuts\\_nomenclature/introduction](http://epp.eurostat.ec.europa.eu/portal/page/portal/nuts_nomenclature/introduction) [http://epp.eurostat.ec.europa.eu/portal/page/portal/nuts\\_nomenclature/history\\_nuts](http://epp.eurostat.ec.europa.eu/portal/page/portal/nuts_nomenclature/history_nuts) The geographical units displayed on this slide represent NUTS level 2 regions, corresponding to larger administrative units or regions in the countries ('comunidades', 'oblasti', 'Bundesländer', etc). Six small Member States have no NUTS level 2 units but only the smaller level 3-regions (Cyprus, Estonia, Latvia, Lithuania, Luxembourg and Malta).  
 Source: See Table HSR-4 ([part ii](#)) in the statistical bulletin 2011.

Information about the total number of syringes given out by specialised programmes in 2005 and 2009 is available for 21 countries representing 55 % of the total EU population, and including an estimated 50 % of the overall number of drug injectors in the EU. The number of syringes given out in this subset of countries increased by more than a third between 2005 and 2009, from 29 million to almost 40 million. This is equivalent to an average of 90 syringes per year per estimated injecting drug user in 2009. While numbers continued to rise between 2007 and 2009 in the Member States that joined the EU in 2004 and 2007, the increase in other Member States appears to be flattening. Data from three of the larger countries (Germany, Italy and the United Kingdom (England and Wales)) are however missing or incomplete and this trend needs to be confirmed in the coming years.

All countries have syringe programmes operating at specialised drugs or health agencies and most also provide syringes through street workers or mobile facilities (see Figure 17). Vending machines and pharmacy-based programmes are less common. An increase in the availability of pharmacy- as well as prison-based NSPs was reported between 2006 and 2009, but syringe provision in custodial settings remains very limited in the EU as a whole.

Figure 17: Changes in the availability of different NSP types in the 27 Member States 2006 to 2009



Source: Standard table on 'syringe availability' (ST10), submitted by NFPs in 2006, 2008 and 2010.

## Reduction of drug-related deaths

Only limited standardised data is available regarding harm reduction measures to reduce drug-related deaths. The available information suggests that these measures could be overall quite limited.

Among the specific interventions targeting drug-related deaths, six EU Member States (Bulgaria, Germany, Denmark, Italy, Portugal, United Kingdom) have developed programmes or trials combining 'take home' doses of naloxone with overdose response training for drug users. Five Member States have implemented supervised drug consumption rooms in 77 European cities. These facilities have as one of their objectives to reduce deaths by providing a safe and hygienic environment and prompt and appropriate medical attention in the event of an on-site overdose.

## Social reintegration

Among clients reported to have entered drug treatment in Europe in 2009, most were unemployed (59 %) and almost one in ten lacked stable accommodation (9 %). Low educational attainment was also common, with 37 % having completed only primary education, and 4 % not having achieved this level of education. With this background there are only limited chances to get a job on the normal working market which makes social reintegration particularly problematic for this group.

Available information suggests that political attention and investment in the area of social reintegration has increased in many European countries. Quality standards in drug treatment often foresee that, to optimise and sustain post-treatment outcomes, social care and reintegration services should be made available to drug treatment clients.

In 2005, a national co-ordinating mechanism for drug-related social reintegration was available in 14 Member States. Social rehabilitation programmes, mainly addressing housing

and employment, were reported to be available in 24 of the 27 reporting countries. However, in nine countries their level of availability was considered to be low. In 2009, 21 EU Member States reported having specific social reintegration sections in their national drug strategies, mainly focusing on the housing, education and employment needs of drug users. Many national policies mention drug addiction as a chronic condition, where recovering problem drug users need support from a range of health and social services, over a long period of time. Coordination and integration of interventions between drug treatment and the broader spectrum of health and social services appears to be developing in EU Member States.

In 2005, seven countries reported on transitional accommodation, such as halfway houses, that primarily benefited drug users who were in the final stages in rehabilitation centres as part of aftercare activities (e.g. in Denmark, Austria, Slovakia), or to drug users who have completed residential drug treatment (e.g. in Ireland).

In 2009, 18 countries reported the provision of emergency accommodation (e.g. night shelters, bed and breakfast) and 20 countries provide some level of transitional accommodation such as halfway houses. In addition, in 12 countries treatment clients have some access to independent living via access to supported accommodation. Many countries also report that drug treatment clients have access to regional or local social reintegration programmes and interventions addressing the needs of a wider group of socially vulnerable individuals, including migrants and other minorities, as well as the long-term unemployed. For example, 15 Member States report that drug treatment clients have access to independent living facilities within the general housing market.

The levels of service provision addressing the housing needs of drug treatment clients are however low. In a recent survey, less than a third of the EU Member States report that a majority of treatment clients could access emergency accommodation (8), transitional housing (7) and supported living services (5).

In the area of training and education, in 2009, 11 countries report the availability of supportive programmes that aim to facilitate drug treatment clients' access to mainstream education, and in 14 countries, vocational training interventions specifically for drug treatment populations were reported to exist. These interventions aim at helping clients to acquire the practical skills necessary for employment in a particular occupation or trade. General educational programmes for socially vulnerable groups, which are accessible to people in drug treatment, were reported by 14 countries and in most countries (18), it was reported that clients could also access vocational training targeted at socially vulnerable groups.

Regarding employment support, in 10 countries, interventions such as specifically created temporary jobs or voluntary work opportunities were available to drug treatment clients and in 19 countries treatment clients could also gain access to the intermediate labour market through interventions targeted at socially vulnerable groups.

## **Prison settings**

Objective and reliable data on health services for drug using prisoners are very limited. The first follow-up report on the Council Recommendation of 18 June 2003 on the prevention and reduction of health-related harm associated with drug dependence brought together data on the situation in 25 Member States in 2005. In addition, some data on availability and level of provision of services were collected from the national focal points in 2008 and an update is currently underway (data expected end of 2011). Most of the available information is based on the opinion of national drug experts, many of whom may not work inside the prison system. Data on the legal situation regarding initiation and continuation of opioid substitution treatment in prisons and on the number of prisoners receiving such treatment were compiled for the first time in 2008.

## Policy initiatives

In 2005, 20 Member States reported having a policy to provide prison health services according to a 'principle of equivalence' to services available in the community; in four countries such a policy was pending approval; and one country reported such a policy did not exist (data for Bulgaria and Romania were not available).

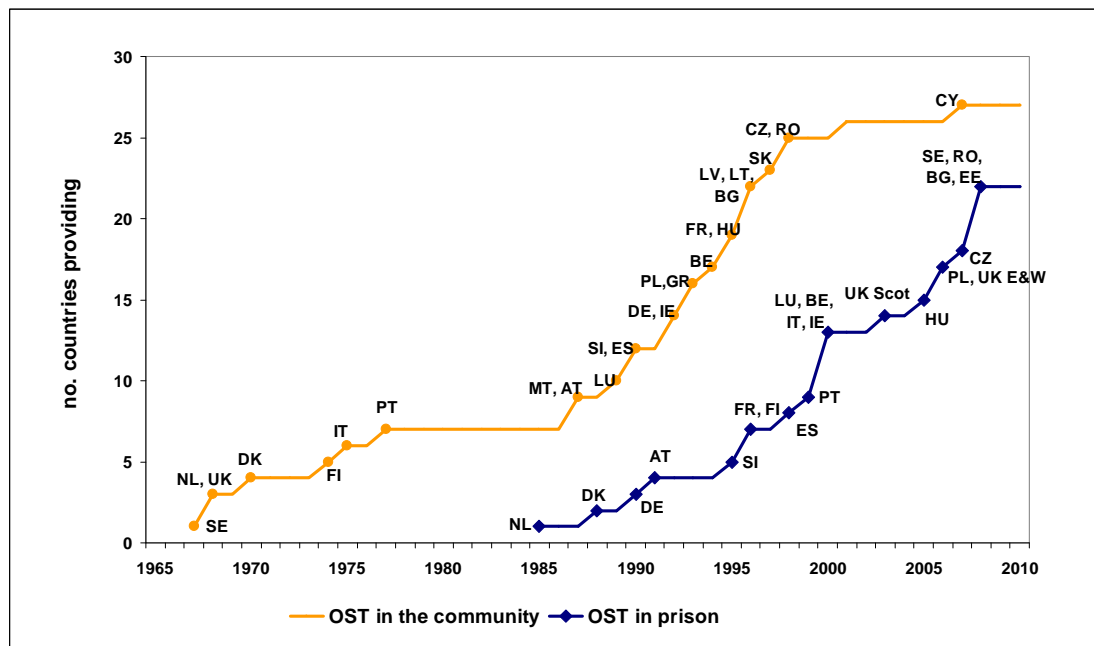
In 2009, most countries reported having established interagency partnerships between prison health services and providers in the community, to deliver health education and treatment in prison and ensure continuity of care upon release. In six countries (Greece, France, Italy, Slovenia, Sweden and the United Kingdom (England and Wales)), prison healthcare is assigned under the responsibility of the Ministry of Health or healthcare delivery is organised through public health services which may contribute to improving the equivalence of services between community and prison and increase availability of data. In Spain, a reform in this area is currently underway.

A limited number of countries have defined a set of healthcare standards for prisons, including the Czech Republic, Spain, Luxembourg and the United Kingdom.

## Opioid substitution treatment in prisons

Over the period of the EU strategy eight additional countries made opioid substitution treatment (OST) available in prisons: Bulgaria, the Czech Republic, Estonia, Hungary, Poland, Romania, Sweden and United Kingdom. On average, a period of seven to eight years can be observed at national level between the introduction of opioid substitution treatment in the community and its introduction in prison (see Figure 18 below).

Figure 18: Year of introduction <sup>(1)</sup> of opioid substitution treatment in the community and in prison settings



<sup>(1)</sup> In Spain, a pilot study on OST in prison started as early as 1990, but coverage of the majority of Spanish prisons was only reached in the second half of the decade.

Source: Table [HSR 1](#) and Table [HSR 9](#) in the statistical bulletin 2011.

In 2009, there were still five EU Member States (Cyprus, Greece, Latvia, Lithuania, Slovakia) where drug users undergoing substitution treatment were unable to continue this type of treatment after arrest, while in Estonia, there were only two cases treated in 2008. There are also five countries where substitution treatment can be continued in prisons, but where the initiation of new treatment is not possible (Bulgaria, Estonia, Malta, Poland, Finland). In many countries, detoxification is still the 'default' treatment for opioid users entering penal institutions. No EU Member State provides heroin-assisted treatment to drug users in prison.

## Other interventions in prisons

Between 2005 and 2011, the number of EU Member States implementing syringe exchange in prison settings increased only slightly from three (Germany, Spain, Luxembourg) to four (Romania), and provision is sometimes limited to just one specific prison within these countries.

A new focus on the detection of hepatitis C infections among prisoners is reported by several countries. Screening programmes have been implemented in Belgium, Bulgaria, Germany, France, Hungary, Lithuania, Luxembourg and Finland. In addition, hepatitis B vaccination programmes for specific risk groups in prison have also increased.

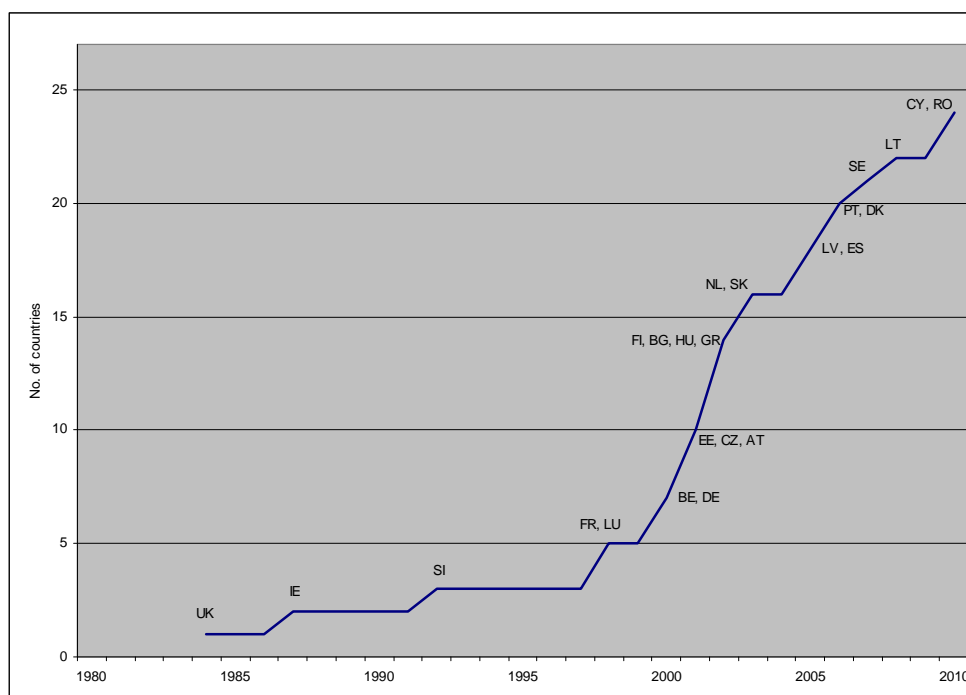
## Quality and standards

### Guidelines

Guidelines are systematically developed statements to assist practitioner and patient decisions about appropriate interventions for specific circumstances (Field and Lohr, 1992). They are an important instrument for enhancing quality and effectiveness of drug demand reduction activities, and can assist the dissemination and improvement of evidence-based

treatment. Most existing guidelines focus on drug treatment, while others also cover prevention. According to the latest available data, 24 Member States have developed national treatment guidelines. This is an area of strong development, as between 2005 and 2010, new or updated treatment guidance were published in 17 Member States. For eight Member States it was their first guideline publication in drug treatment (see Figure 19). As of April 2011, a total of 134 drug treatment guidelines have been collected from EU Member States. Over a third of the Member States have published opioid substitution treatment guidelines during the last five years.

Figure 19: Cumulative number of EU Member States by year of publication of first drug treatment guidelines



Source: [Best Practice Portal – Standards and Guidelines for treatment.](#)

More than 50 of these guidelines refer to pharmacological treatment of drug dependence, in particular opioid substitution treatment with methadone; an additional 30 to 40 guidelines cover psychosocial support or detoxification. While problem opioid use is the most frequent disorder covered by the guidelines, another large group of guidelines address drug users in general without mentioning a specific substance. Less than 20 guidelines were found that targeted treatment for illicit substances other than opioids.

Along with the publication of treatment guidelines, most of the countries also developed programmes for guideline implementation. These ranged from rather complex processes relying on the results of preliminary studies to identify barriers and obstacles to implementation, to more straightforward delegation of responsibility for the dissemination of the guidelines and the provision of training to medical associations.

Training and continuous education are key elements in quality assurance. A recent ad hoc data collection found that specific training programmes in the drug field exist in at least 25 EU Member States, particularly for doctors and nurses but also for psychologists and social workers. In some countries, such as the Czech Republic, initiatives started decades ago, but for the majority of countries the programmes have been developed in the last five to ten years.

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